SEQUENCE LISTING

<110> GENSET S.A.

<120> USE OF PP2A PHOSPHATASE MODULATORS IN THE TREATMENT OF MENTAL DISORDERS

<130> 794A WO

<150> US 60/391,359
<151> 2002-06-25

<160> 47

<170> PatentIn version 3.1

<210> 1
<211> 1932
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(1932)
<223>

<400> 1
atg gtg cag aag tcg cgc aac ggc ggc gta tac ccc ggc ccg agc ggg   48
Met Val Gln Lys Ser Arg Asn Gly Gly Val Tyr Pro Gly Pro Ser Gly
1   5   10   15

gag aag aag ctg aag gtg ggc ttc gtg ggg ctg gac ccc ggc gcg ccc   96
Glu Lys Lys Leu Lys Val Gly Phe Val Gly Leu Asp Pro Gly Ala Pro
            20   25   30

gac tcc acc cgg gac ggg gcg ctg ctg atc gcc ggc tcc gag gcc ccc   144
Asp Ser Thr Arg Asp Gly Ala Leu Leu Ile Ala Gly Ser Glu Ala Pro
        35   40   45

aag cgc ggc agc atc ctc agc aaa cct cgc gcg ggc ggc gcg ggc gcc   192
Lys Arg Gly Ser Ile Leu Ser Lys Pro Arg Ala Gly Gly Ala Gly Ala
    50   55   60

ggg aag ccc ccc aag cgc aac gcc ttc tac cgc aag ctg cag aat ttc   240
Gly Lys Pro Pro Lys Arg Asn Ala Phe Tyr Arg Lys Leu Gln Asn Phe
65   70   75   80

ctc tac aac gtg ctg gag cgg ccg cgc ggc tgg gcg ttc atc tac cac   288
Leu Tyr Asn Val Leu Glu Arg Pro Arg Gly Trp Ala Phe Ile Tyr His
                85   90   95

gcc tac gtg ttc ctc ctg gtt ttc tcc tgc ctc gtg ctg tct gtg ttt   336
Ala Tyr Val Phe Leu Leu Val Phe Ser Cys Leu Val Leu Ser Val Phe
      100   105   110

tcc acc atc aag gag tat gag aag agc tcg gag ggg gcc ctc tac atc   384
Ser Thr Ile Lys Glu Tyr Glu Lys Ser Ser Glu Gly Ala Leu Tyr Ile
      115   120   125

ctg gaa atc gtg act atc gtg gtg ttt ggc gtg gag tac ttc gtg cgg   432
Leu Glu Ile Val Thr Ile Val Val Phe Gly Val Glu Tyr Phe Val Arg
   130   135   140

atc tgg gcc gca ggc tgc tgc tgc cgg tac cgt ggc tgg agg ggg cgg   480
Ile Trp Ala Ala Gly Cys Cys Cys Arg Tyr Arg Gly Trp Arg Gly Arg
145   150   155   160

ctc aag ttt gcc cgg aaa ccg ttc tgt gtg att gac atc atg gtg ctc   528
Leu Lys Phe Ala Arg Lys Pro Phe Cys Val Ile Asp Ile Met Val Leu
      165   170   175

atc gcc tcc att gcg gtg ctg gcc gcc ggc tcc cag ggc aac gtc ttt   576
Ile Ala Ser Ile Ala Val Leu Ala Ala Gly Ser Gln Gly Asn Val Phe
      180   185   190

gcc aca tct gcg ctc cgg agc ctg cgc ttc ctg cag att ctg cgg atg   624
Ala Thr Ser Ala Leu Arg Ser Leu Arg Phe Leu Gln Ile Leu Arg Met
      195   200   205

atc cgc atg gac cgg cgg gga ggc acc tgg aag ctg ctg ggc tct gtg   672
Ile Arg Met Asp Arg Arg Gly Gly Thr Trp Lys Leu Leu Gly Ser Val
   210   215   220

gtc tat gcc cac agc aag gag ctg gtc act gcc tgg tac atc ggc ttc   720
Val Tyr Ala His Ser Lys Glu Leu Val Thr Ala Trp Tyr Ile Gly Phe
225   230   235   240

ctt tgt ctc atc ctg gcc tcg ttc ctg gtg tac ttg gca gag aag ggg   768
Leu Cys Leu Ile Leu Ala Ser Phe Leu Val Tyr Leu Ala Glu Lys Gly
      245   250   255

gag aac gac cac ttt gac acc tac gcg gat gca ctc tgg tgg ggc ctg   816
Glu Asn Asp His Phe Asp Thr Tyr Ala Asp Ala Leu Trp Trp Gly Leu
   260   265   270

atc acg ctg acc acc att ggc tac ggg gac aag tac ccc cag acc tgg   864
Ile Thr Leu Thr Thr Ile Gly Tyr Gly Asp Lys Tyr Pro Gln Thr Trp
   275   280   285

aac ggc agg ctc ctt gcg gca acc ttc acc ctc atc ggt gtc tcc ttc   912

Asn Gly Arg Leu Leu Ala Ala Thr Phe Thr Leu Ile Gly Val Ser Phe
   290   295   300

ttc gcg ctg cct gca ggc atc ttg ggg tct ggg ttt gcc ctg aag gtt   960
Phe Ala Leu Pro Ala Gly Ile Leu Gly Ser Gly Phe Ala Leu Lys Val
305   310   315   320

cag gag cag cac agg cag aag cac ttt gag aag agg cgg aac ccg gca   1008
Gln Glu Gln His Arg Gln Lys His Phe Glu Lys Arg Arg Asn Pro Ala
          325   330   335

gca ggc ctg atc cag tcg gcc tgg aga ttc tac gcc acc aac ctc tcg   1056
Ala Gly Leu Ile Gln Ser Ala Trp Arg Phe Tyr Ala Thr Asn Leu Ser
          340   345   350

cgc aca gac ctg cac tcc acg tgg cag tac tac gag cga acg gtc acc   1104
Arg Thr Asp Leu His Ser Thr Trp Gln Tyr Tyr Glu Arg Thr Val Thr
          355   360   365

gtg ccc atg tac agt tcg caa act caa acc tac ggg gcc tcc aga ctt   1152
Val Pro Met Tyr Ser Ser Gln Thr Gln Thr Tyr Gly Ala Ser Arg Leu
   370   375   380

atc ccc ccg ctg aac cag ctg gag ctg ctg agg aac ctc aag agt aaa   1200
Ile Pro Pro Leu Asn Gln Leu Glu Leu Leu Arg Asn Leu Lys Ser Lys
385   390   395   400

tct gga ctc gct ttc agg aag gac ccc ccg ccg gag ccg tct cca agt   1248
Ser Gly Leu Ala Phe Arg Lys Asp Pro Pro Pro Glu Pro Ser Pro Ser
          405   410   415

aaa ggc agc ccg tgc aga ggg ccc ctg tgt gga tgc tgc ccc gga cgc   1296
Lys Gly Ser Pro Cys Arg Gly Pro Leu Cys Gly Cys Cys Pro Gly Arg
          420   425   430

tct agc cag aag gtc agt ttg aaa gat cgt gtc ttc tcc agc ccc cga   1344
Ser Ser Gln Lys Val Ser Leu Lys Asp Arg Val Phe Ser Ser Pro Arg
          435   440   445

ggc gtg gct gcc aag ggg aag ggg tcc ccg cag gcc cag act gtg agg   1392
Gly Val Ala Ala Lys Gly Lys Gly Ser Pro Gln Ala Gln Thr Val Arg
   450   455   460

cgg tca ccc agc gcc gac cag agc ctc gag gac agc ccc agc aag gtg   1440
Arg Ser Pro Ser Ala Asp Gln Ser Leu Glu Asp Ser Pro Ser Lys Val
465   470   475   480

ccc aag agc tgg agc ttc ggg gac cgc agc cgg gca cgc cag gct ttc   1488
Pro Lys Ser Trp Ser Phe Gly Asp Arg Ser Arg Ala Arg Gln Ala Phe
   485   490   495

cgc atc aag ggt gcc gcg tca cgg cag aac tca gaa gaa gca agc ctc   1536
Arg Ile Lys Gly Ala Ala Ser Arg Gln Asn Ser Glu Glu Ala Ser Leu
        500   505   510

ccc gga gag gac att gtg gat gac aag agc tgc ccc tgc gag ttt gtg   1584
Pro Gly Glu Asp Ile Val Asp Asp Lys Ser Cys Pro Cys Glu Phe Val
        515   520   525

acc gag gac ctg acc ccg ggc ctc aaa gtc agc atc aga gcc gtg tgt   1632
Thr Glu Asp Leu Thr Pro Gly Leu Lys Val Ser Ile Arg Ala Val Cys
    530   535   540

gtc atg cgg ttc ctg gtg tcc aag cgg aag ttc aag gag agc ctg cgg   1680
Val Met Arg Phe Leu Val Ser Lys Arg Lys Phe Lys Glu Ser Leu Arg
545   550   555   560

ccc tac gac gtg atg gac gtc atc gag cag tac tca gcc ggc cac ctg   1728
Pro Tyr Asp Val Met Asp Val Ile Glu Gln Tyr Ser Ala Gly His Leu
        565   570   575

gac atg ctg tcc cga att aag agc ctg cag tcc agg caa gag ccc cgc   1776
Asp Met Leu Ser Arg Ile Lys Ser Leu Gln Ser Arg Gln Glu Pro Arg
        580   585   590

ctg cct gtc cag cag ggg aca aga acg ggg tgg gct tct ggg aca aag   1824
Leu Pro Val Gln Gln Gly Thr Arg Thr Gly Trp Ala Ser Gly Thr Lys
        595   600   605

ccc act gtg gcc cat ggt ggg agt gca ggg ggt gtg tgg gcg ggg cct   1872
Pro Thr Val Ala His Gly Gly Ser Ala Gly Gly Val Trp Ala Gly Pro
    610   615   620

cct ccc cac cca cgt cgg cct ctg tca gct tct gtt gtg tct tca caa   1920
Pro Pro His Pro Arg Arg Pro Leu Ser Ala Ser Val Val Ser Ser Gln
625   630   635   640

agt ctg ttt taa   1932
Ser Leu Phe

<210> 2
<211> 643
<212> PRT
<213> Homo sapiens

<400> 2

Met Val Gln Lys Ser Arg Asn Gly Gly Val Tyr Pro Gly Pro Ser Gly

1   5   10   15

Glu Lys Lys Leu Lys Val Gly Phe Val Gly Leu Asp Pro Gly Ala Pro
         20   25   30

Asp Ser Thr Arg Asp Gly Ala Leu Leu Ile Ala Gly Ser Glu Ala Pro
      35   ·   40   45

Lys Arg Gly Ser Ile Leu Ser Lys Pro Arg Ala Gly Gly Ala Gly Ala
   50   55   60

Gly Lys Pro Pro Lys Arg Asn Ala Phe Tyr Arg Lys Leu Gln Asn Phe
65   70   75   80

Leu Tyr Asn Val Leu Glu Arg Pro Arg Gly Trp Ala Phe Ile Tyr His
         85   90   95

Ala Tyr Val Phe Leu Leu Val Phe Ser Cys Leu Val Leu Ser Val Phe
       100   105   110

Ser Thr Ile Lys Glu Tyr Glu Lys Ser Ser Glu Gly Ala Leu Tyr Ile
      115   120   125

Leu Glu Ile Val Thr Ile Val Val Phe Gly Val Glu Tyr Phe Val Arg
   130   135   140

Ile Trp Ala Ala Gly Cys Cys Cys Arg Tyr Arg Gly Trp Arg Gly Arg
145   150   155   160

Leu Lys Phe Ala Arg Lys Pro Phe Cys Val Ile Asp Ile Met Val Leu
         165   170   175

Ile Ala Ser Ile Ala Val Leu Ala Ala Gly Ser Gln Gly Asn Val Phe
         180   185   190

Ala Thr Ser Ala Leu Arg Ser Leu Arg Phe Leu Gln Ile Leu Arg Met
      195   200   205

Ile Arg Met Asp Arg Arg Gly Gly Thr Trp Lys Leu Leu Gly Ser Val
   210   215   220

Val Tyr Ala His Ser Lys Glu Leu Val Thr Ala Trp Tyr Ile Gly Phe
225   230   235   240

Leu Cys Leu Ile Leu Ala Ser Phe Leu Val Tyr Leu Ala Glu Lys Gly
      245   250   255

Glu Asn Asp His Phe Asp Thr Tyr Ala Asp Ala Leu Trp Trp Gly Leu
      260   265   270

Ile Thr Leu Thr Thr Ile Gly Tyr Gly Asp Lys Tyr Pro Gln Thr Trp
      275   280   285

Asn Gly Arg Leu Leu Ala Ala Thr Phe Thr Leu Ile Gly Val Ser Phe
   290   295   300

Phe Ala Leu Pro Ala Gly Ile Leu Gly Ser Gly Phe Ala Leu Lys Val
305   310   315   320

Gln Glu Gln His Arg Gln Lys His Phe Glu Lys Arg Arg Asn Pro Ala
      325   330   335

Ala Gly Leu Ile Gln Ser Ala Trp Arg Phe Tyr Ala Thr Asn Leu Ser
      340   345   350

Arg Thr Asp Leu His Ser Thr Trp Gln Tyr Tyr Glu Arg Thr Val Thr
      355   360   365

Val Pro Met Tyr Ser Ser Gln Thr Gln Thr Tyr Gly Ala Ser Arg Leu
     370   375   380

Ile Pro Pro Leu Asn Gln Leu Glu Leu Leu Arg Asn Leu Lys Ser Lys
385   390   395   400

Ser Gly Leu Ala Phe Arg Lys Asp Pro Pro Pro Glu Pro Ser Pro Ser

405　　　　　410　　　　　415

Lys Gly Ser Pro Cys Arg Gly Pro Leu Cys Gly Cys Cys Pro Gly Arg
　　　420　　　　　425　　　　　430

Ser Ser Gln Lys Val Ser Leu Lys Asp Arg Val Phe Ser Ser Pro Arg
　　　435　　　　　440　　　　　445

Gly Val Ala Ala Lys Gly Lys Gly Ser Pro Gln Ala Gln Thr Val Arg
　　450　　　　　455　　　　　460

Arg Ser Pro Ser Ala Asp Gln Ser Leu Glu Asp Ser Pro Ser Lys Val
465　　　　　470　　　　　475　　　　　480

Pro Lys Ser Trp Ser Phe Gly Asp Arg Ser Arg Ala Arg Gln Ala Phe
　　　485　　　　　490　　　　　495

Arg Ile Lys Gly Ala Ala Ser Arg Gln Asn Ser Glu Glu Ala Ser Leu
　　　500　　　　　505　　　　　510

Pro Gly Glu Asp Ile Val Asp Asp Lys Ser Cys Pro Cys Glu Phe Val
　　　515　　　　　520　　　　　525

Thr Glu Asp Leu Thr Pro Gly Leu Lys Val Ser Ile Arg Ala Val Cys
　　530　　　　　535　　　　　540

Val Met Arg Phe Leu Val Ser Lys Arg Lys Phe Lys Glu Ser Leu Arg
545　　　　　550　　　　　555　　　　　560

Pro Tyr Asp Val Met Asp Val Ile Glu Gln Tyr Ser Ala Gly His Leu
　　　565　　　　　570　　　　　575

Asp Met Leu Ser Arg Ile Lys Ser Leu Gln Ser Arg Gln Glu Pro Arg
　　　580　　　　　585　　　　　590

Leu Pro Val Gln Gln Gly Thr Arg Thr Gly Trp Ala Ser Gly Thr Lys
　　　595　　　　　600　　　　　605

Pro Thr Val Ala His Gly Gly Ser Ala Gly Gly Val Trp Ala Gly Pro
    610   615   620

Pro Pro His Pro Arg Arg Pro Leu Ser Ala Ser Val Val Ser Ser Gln
625   630   635   640

Ser Leu Phe

<210> 3
<211> 1878
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(1878)
<223>

<400> 3
atg gtg cag aag tcg cgc aac ggc ggc gta tac ccc ggc ccg agc ggg   48
Met Val Gln Lys Ser Arg Asn Gly Gly Val Tyr Pro Gly Pro Ser Gly
1   5   10   15

gag aag aag ctg aag gtg ggc ttc gtg ggg ctg gac ccc ggc gcg ccc   96
Glu Lys Lys Leu Lys Val Gly Phe Val Gly Leu Asp Pro Gly Ala Pro
        20   25   30

gac tcc acc cgg gac ggg gcg ctg ctg atc gcc ggc tcc gag gcc ccc   144
Asp Ser Thr Arg Asp Gly Ala Leu Leu Ile Ala Gly Ser Glu Ala Pro
    35   40   45

aag cgc ggc agc atc ctc agc aaa cct cgc gcg ggc ggc gcg ggc gcc   192
Lys Arg Gly Ser Ile Leu Ser Lys Pro Arg Ala Gly Gly Ala Gly Ala
    50   55   60

ggg aag ccc ccc aag cgc aac gcc ttc tac cgc aag ctg cag aat ttc   240
Gly Lys Pro Pro Lys Arg Asn Ala Phe Tyr Arg Lys Leu Gln Asn Phe
65   70   75   80

ctc tac aac gtg ctg gag cgg ccg cgc ggc tgg gcg ttc atc tac cac   288
Leu Tyr Asn Val Leu Glu Arg Pro Arg Gly Trp Ala Phe Ile Tyr His
            85   90   95

gcc tac gtg ttc ctc ctg gtt ttc tcc tgc ctc gtg ctg tct gtg ttt   336
Ala Tyr Val Phe Leu Leu Val Phe Ser Cys Leu Val Leu Ser Val Phe

```
           100  .           105              110

tcc acc atc aag gag tat gag aag agc tcg gag ggg gcc ctc tac atc     384
Ser Thr Ile Lys Glu Tyr Glu Lys Ser Ser Glu Gly Ala Leu Tyr Ile
      115           120           125


ctg gaa atc gtg act atc gtg gtg ttt ggc gtg gag tac ttc gtg cgg     432
Leu Glu Ile Val Thr Ile Val Val Phe Gly Val Glu Tyr Phe Val Arg
      130           135           140


atc tgg gcc gca ggc tgc tgc tgc cgg tac cgt ggc tgg agg ggg cgg     480
Ile Trp Ala Ala Gly Cys Cys Cys Arg Tyr Arg Gly Trp Arg Gly Arg
145           150           155           160


ctc aag ttt gcc cgg aaa ccg ttc tgt gtg att gac atc atg gtg ctc     528
Leu Lys Phe Ala Arg Lys Pro Phe Cys Val Ile Asp Ile Met Val Leu
            165           170           175


atc gcc tcc att gcg gtg ctg gcc gcc ggc tcc cag ggc aac gtc ttt     576
Ile Ala Ser Ile Ala Val Leu Ala Ala Gly Ser Gln Gly Asn Val Phe
      180           185           190


gcc aca tct gcg ctc cgg agc ctg cgc ttc ctg cag att ctg cgg atg     624
Ala Thr Ser Ala Leu Arg Ser Leu Arg Phe Leu Gln Ile Leu Arg Met
      195           200           205


atc cgc atg gac cgg cgg gga ggc acc tgg aag ctg ctg ggc tct gtg     672
Ile Arg Met Asp Arg Arg Gly Gly Thr Trp Lys Leu Leu Gly Ser Val
      210           215           220


gtc tat gcc cac agc aag gag ctg gtc act gcc tgg tac atc ggc ttc     720
Val Tyr Ala His Ser Lys Glu Leu Val Thr Ala Trp Tyr Ile Gly Phe
225           230           235           240


ctt tgt ctc atc ctg gcc tcg ttc ctg gtg tac ttg gca gag aag ggg     768
Leu Cys Leu Ile Leu Ala Ser Phe Leu Val Tyr Leu Ala Glu Lys Gly
            245           250           255


gag aac gac cac ttt gac acc tac gcg gat gca ctc tgg tgg ggc ctg     816
Glu Asn Asp His Phe Asp Thr Tyr Ala Asp Ala Leu Trp Trp Gly Leu
      260           265           270


atc acg ctg acc acc att ggc tac ggg gac aag tac ccc cag acc tgg     864
Ile Thr Leu Thr Thr Ile Gly Tyr Gly Asp Lys Tyr Pro Gln Thr Trp
      275           280           285


aac ggc agg ctc ctt gcg gca acc ttc acc ctc atc ggt gtc tcc ttc     912
Asn Gly Arg Leu Leu Ala Ala Thr Phe Thr Leu Ile Gly Val Ser Phe
      290           295           300
```

ttc gcg ctg cct gca ggc atc ttg ggg tct ggg ttt gcc ctg aag gtt   960
Phe Ala Leu Pro Ala Gly Ile Leu Gly Ser Gly Phe Ala Leu Lys Val
305   310   315   320

cag gag cag cac agg cag aag cac ttt gag aag agg cgg aac ccg gca   1008
Gln Glu Gln His Arg Gln Lys His Phe Glu Lys Arg Arg Asn Pro Ala
          325   330   335

gca ggc ctg atc cag tcg gcc tgg aga ttc tac gcc acc aac ctc tcg   1056
Ala Gly Leu Ile Gln Ser Ala Trp Arg Phe Tyr Ala Thr Asn Leu Ser
          340   345   350

cgc aca gac ctg cac tcc acg tgg cag tac tac gag cga acg gtc acc   1104
Arg Thr Asp Leu His Ser Thr Trp Gln Tyr Tyr Glu Arg Thr Val Thr
          355   360   365

gtg ccc atg tac agt tcg caa act caa acc tac ggg gcc tcc aga ctt   1152
Val Pro Met Tyr Ser Ser Gln Thr Gln Thr Tyr Gly Ala Ser Arg Leu
     370   375   380

atc ccc ccg ctg aac cag ctg gag ctg ctg agg aac ctc aag agt aaa   1200
Ile Pro Pro Leu Asn Gln Leu Glu Leu Leu Arg Asn Leu Lys Ser Lys
385   390   395   400

tct gga ctc gct ttc agg aag gac ccc ccg ccg gag ccg tct cca agc   1248
Ser Gly Leu Ala Phe Arg Lys Asp Pro Pro Pro Glu Pro Ser Pro Ser
          405   410   415

cag aag gtc agt ttg aaa gat cgt gtc ttc tcc agc ccc cga ggc gtg   1296
Gln Lys Val Ser Leu Lys Asp Arg Val Phe Ser Ser Pro Arg Gly Val
          420   425   430

gct gcc aag ggg aag ggg tcc ccg cag gcc cag act gtg agg cgg tca   1344
Ala Ala Lys Gly Lys Gly Ser Pro Gln Ala Gln Thr Val Arg Arg Ser
          435   440   445

ccc agc gcc gac cag agc ctc gag gac agc ccc agc aag gtg ccc aag   1392
Pro Ser Ala Asp Gln Ser Leu Glu Asp Ser Pro Ser Lys Val Pro Lys
     450   455   460

agc tgg agc ttc ggg gac cgc agc cgg gca cgc cag gct ttc cgc atc   1440
Ser Trp Ser Phe Gly Asp Arg Ser Arg Ala Arg Gln Ala Phe Arg Ile
465   470   475   480

aag ggt gcc gcg tca cgg cag aac tca gaa gaa gca agc ctc ccc gga   1488
Lys Gly Ala Ala Ser Arg Gln Asn Ser Glu Glu Ala Ser Leu Pro Gly
          485   490   495

gag gac att gtg gat gac aag agc tgc ccc tgc gag ttt gtg acc gag   1536
Glu Asp Ile Val Asp Asp Lys Ser Cys Pro Cys Glu Phe Val Thr Glu

```
            500              505              510

gac ctg acc ccg ggc ctc aaa gtc agc atc aga gcc gtg tgt gtc atg    1584
Asp Leu Thr Pro Gly Leu Lys Val Ser Ile Arg Ala Val Cys Val Met
     515              520              525


cgg ttc ctg gtg tcc aag cgg aag ttc aag gag agc ctg cgg ccc tac    1632
Arg Phe Leu Val Ser Lys Arg Lys Phe Lys Glu Ser Leu Arg Pro Tyr
     530              535              540


gac gtg atg gac gtc atc gag cag tac tca gcc ggc cac ctg gac atg    1680
Asp Val Met Asp Val Ile Glu Gln Tyr Ser Ala Gly His Leu Asp Met
 545              550              555              560


ctg tcc cga att aag agc ctg cag tcc agg caa gag ccc cgc ctg cct    1728
Leu Ser Arg Ile Lys Ser Leu Gln Ser Arg Gln Glu Pro Arg Leu Pro
             565              570              575


gtc cag cag ggg aca aga acg ggg tgg gct tct ggg aca aag ccc act    1776
Val Gln Gln Gly Thr Arg Thr Gly Trp Ala Ser Gly Thr Lys Pro Thr
         580              585              590


gtg gcc cat ggt ggg agt gca ggg ggt gtg tgg gcg ggg cct cct ccc    1824
Val Ala His Gly Gly Ser Ala Gly Gly Val Trp Ala Gly Pro Pro Pro
         595              600              605


cac cca cgt cgg cct ctg tca gct tct gtt gtg tct tca caa agt ctg    1872
His Pro Arg Arg Pro Leu Ser Ala Ser Val Val Ser Ser Gln Ser Leu
     610              615              620


ttt taa                                    1878
Phe
625
```

<210> 4
<211> 625
<212> PRT
<213> Homo sapiens

<400> 4


```
Met Val Gln Lys Ser Arg Asn Gly Gly Val Tyr Pro Gly Pro Ser Gly
1           5              10              15


Glu Lys Lys Leu Lys Val Gly Phe Val Gly Leu Asp Pro Gly Ala Pro
         20              25              30
```

Asp Ser Thr Arg Asp Gly Ala Leu Leu Ile Ala Gly Ser Glu Ala Pro
        35   40   45

Lys Arg Gly Ser Ile Leu Ser Lys Pro Arg Ala Gly Gly Ala Gly Ala
        50   55   60

Gly Lys Pro Pro Lys Arg Asn Ala Phe Tyr Arg Lys Leu Gln Asn Phe
    65   70   75   80

Leu Tyr Asn Val Leu Glu Arg Pro Arg Gly Trp Ala Phe Ile Tyr His
            85   90   95

Ala Tyr Val Phe Leu Leu Val Phe Ser Cys Leu Val Leu Ser Val Phe
        100   105   110

Ser Thr Ile Lys Glu Tyr Glu Lys Ser Ser Glu Gly Ala Leu Tyr Ile
        115   120   125

Leu Glu Ile Val Thr Ile Val Val Phe Gly Val Glu Tyr Phe Val Arg
    130   135   140

Ile Trp Ala Ala Gly Cys Cys Cys Arg Tyr Arg Gly Trp Arg Gly Arg
145   150   155   160

Leu Lys Phe Ala Arg Lys Pro Phe Cys Val Ile Asp Ile Met Val Leu
        165   170   175

Ile Ala Ser Ile Ala Val Leu Ala Ala Gly Ser Gln Gly Asn Val Phe
        180   185   190

Ala Thr Ser Ala Leu Arg Ser Leu Arg Phe Leu Gln Ile Leu Arg Met
        195   200   205

Ile Arg Met Asp Arg Arg Gly Gly Thr Trp Lys Leu Leu Gly Ser Val
    210   215   220

Val Tyr Ala His Ser Lys Glu Leu Val Thr Ala Trp Tyr Ile Gly Phe
225   230   235   240

Leu Cys Leu Ile Leu Ala Ser Phe Leu Val Tyr Leu Ala Glu Lys Gly
        245   250   255

Glu Asn Asp His Phe Asp Thr Tyr Ala Asp Ala Leu Trp Trp Gly Leu
        260   265   270

Ile Thr Leu Thr Thr Ile Gly Tyr Gly Asp Lys Tyr Pro Gln Thr Trp
        275   280   285

Asn Gly Arg Leu Leu Ala Ala Thr Phe Thr Leu Ile Gly Val Ser Phe
        290   295   300

Phe Ala Leu Pro Ala Gly Ile Leu Gly Ser Gly Phe Ala Leu Lys Val
305   310   315   320

Gln Glu Gln His Arg Gln Lys His Phe Glu Lys Arg Arg Asn Pro Ala
        325   330   335

Ala Gly Leu Ile Gln Ser Ala Trp Arg Phe Tyr Ala Thr Asn Leu Ser
        340   345   350

Arg Thr Asp Leu His Ser Thr Trp Gln Tyr Tyr Glu Arg Thr Val Thr
        355   360   365

Val Pro Met Tyr Ser Ser Gln Thr Gln Thr Tyr Gly Ala Ser Arg Leu
        370   375   380

Ile Pro Pro Leu Asn Gln Leu Glu Leu Leu Arg Asn Leu Lys Ser Lys
385   390   395   400

Ser Gly Leu Ala Phe Arg Lys Asp Pro Pro Pro Glu Pro Ser Pro Ser
            405   410   415

Gln Lys Val Ser Leu Lys Asp Arg Val Phe Ser Ser Pro Arg Gly Val
        420   425   430

Ala Ala Lys Gly Lys Gly Ser Pro Gln Ala Gln Thr Val Arg Arg Ser
    435   440   445

Pro Ser Ala Asp Gln Ser Leu Glu Asp Ser Pro Ser Lys Val Pro Lys
    450   455   460

Ser Trp Ser Phe Gly Asp Arg Ser Arg Ala Arg Gln Ala Phe Arg Ile
465   470   475   480

Lys Gly Ala Ala Ser Arg Gln Asn Ser Glu Glu Ala Ser Leu Pro Gly
       485   490   495

Glu Asp Ile Val Asp Asp Lys Ser Cys Pro Cys Glu Phe Val Thr Glu
      500   505   510

Asp Leu Thr Pro Gly Leu Lys Val Ser Ile Arg Ala Val Cys Val Met
    515   520   525

Arg Phe Leu Val Ser Lys Arg Lys Phe Lys Glu Ser Leu Arg Pro Tyr
    530   535   540

Asp Val Met Asp Val Ile Glu Gln Tyr Ser Ala Gly His Leu Asp Met
545   550   555   560

Leu Ser Arg Ile Lys Ser Leu Gln Ser Arg Gln Glu Pro Arg Leu Pro
     565   570   575

Val Gln Gln Gly Thr Arg Thr Gly Trp Ala Ser Gly Thr Lys Pro Thr
    580   585   590

Val Ala His Gly Gly Ser Ala Gly Gly Val Trp Ala Gly Pro Pro Pro
    595   600   605

His Pro Arg Arg Pro Leu Ser Ala Ser Val Val Ser Ser Gln Ser Leu
    610   615   620

Phe
625

<210> 5
<211> 1848
<212> DNA
<213> Homo sapiens

<220>   .
<221> CDS
<222> (1)..(1848)
<223>

<400> 5

atg gtg cag aag tcg cgc aac ggc ggc gta tac ccc ggc ccg agc ggg   48
Met Val Gln Lys Ser Arg Asn Gly Gly Val Tyr Pro Gly Pro Ser Gly
1   5   10   15

gag aag aag ctg aag gtg ggc ttc gtg ggg ctg gac ccc ggc gcg ccc   96
Glu Lys Lys Leu Lys Val Gly Phe Val Gly Leu Asp Pro Gly Ala Pro
            20   25   30

gac tcc acc cgg gac ggg gcg ctg ctg atc gcc ggc tcc gag gcc ccc   144
Asp Ser Thr Arg Asp Gly Ala Leu Leu Ile Ala Gly Ser Glu Ala Pro
            35   40   45

aag cgc ggc agc atc ctc agc aaa cct cgc gcg ggc ggc gcg ggc gcc   192
Lys Arg Gly Ser Ile Leu Ser Lys Pro Arg Ala Gly Gly Ala Gly Ala
            50   55   60

ggg aag ccc ccc aag cgc aac gcc ttc tac cgc aag ctg cag aat ttc   240
Gly Lys Pro Pro Lys Arg Asn Ala Phe Tyr Arg Lys Leu Gln Asn Phe
65   70   75   80

ctc tac aac gtg ctg gag cgg ccg cgc ggc tgg gcg ttc atc tac cac   288
Leu Tyr Asn Val Leu Glu Arg Pro Arg Gly Trp Ala Phe Ile Tyr His
                85   90   95

gcc tac gtg ttc ctc ctg gtt ttc tcc tgc ctc gtg ctg tct gtg ttt   336
Ala Tyr Val Phe Leu Leu Val Phe Ser Cys Leu Val Leu Ser Val Phe
            100   105   110

tcc acc atc aag gag tat gag aag agc tcg gag ggg gcc ctc tac atc   384
Ser Thr Ile Lys Glu Tyr Glu Lys Ser Ser Glu Gly Ala Leu Tyr Ile
            115   120   125

ctg gaa atc gtg act atc gtg gtg ttt ggc gtg gag tac ttc gtg cgg   432
Leu Glu Ile Val Thr Ile Val Val Phe Gly Val Glu Tyr Phe Val Arg
            130   135   140

atc tgg gcc gca ggc tgc tgc tgc cgg tac cgt ggc tgg agg ggg cgg   480

```
Ile Trp Ala Ala Gly Cys Cys Cys Arg Tyr Arg Gly Trp Arg Gly Arg
145             150         155             160
```

```
ctc aag ttt gcc cgg aaa ccg ttc tgt gtg att gac atc atg gtg ctc        528
Leu Lys Phe Ala Arg Lys Pro Phe Cys Val Ile Asp Ile Met Val Leu
            165         170         175
```

```
atc gcc tcc att gcg gtg ctg gcc gcc ggc tcc cag ggc aac gtc ttt        576
Ile Ala Ser Ile Ala Val Leu Ala Ala Gly Ser Gln Gly Asn Val Phe
            180         185         190
```

```
gcc aca tct gcg ctc cgg agc ctg cgc ttc ctg cag att ctg cgg atg        624
Ala Thr Ser Ala Leu Arg Ser Leu Arg Phe Leu Gln Ile Leu Arg Met
            195         200         205
```

```
atc cgc atg gac cgg cgg gga ggc acc tgg aag ctg ctg ggc tct gtg        672
Ile Arg Met Asp Arg Arg Gly Gly Thr Trp Lys Leu Leu Gly Ser Val
    210         215         220
```

```
gtc tat gcc cac agc aag gag ctg gtc act gcc tgg tac atc ggc ttc        720
Val Tyr Ala His Ser Lys Glu Leu Val Thr Ala Trp Tyr Ile Gly Phe
225         230         235             240
```

```
ctt tgt ctc atc ctg gcc tcg ttc ctg gtg tac ttg gca gag aag ggg        768
Leu Cys Leu Ile Leu Ala Ser Phe Leu Val Tyr Leu Ala Glu Lys Gly
        245         250         255
```

```
gag aac gac cac ttt gac acc tac gcg gat gca ctc tgg tgg ggc ctg        816
Glu Asn Asp His Phe Asp Thr Tyr Ala Asp Ala Leu Trp Trp Gly Leu
    260         265         270
```

```
atc acg ctg acc acc att ggc tac ggg gac aag tac ccc cag acc tgg        864
Ile Thr Leu Thr Thr Ile Gly Tyr Gly Asp Lys Tyr Pro Gln Thr Trp
    275         280         285
```

```
aac ggc agg ctc ctt gcg gca acc ttc acc ctc atc ggt gtc tcc ttc        912
Asn Gly Arg Leu Leu Ala Ala Thr Phe Thr Leu Ile Gly Val Ser Phe
    290         295         300
```

```
ttc gcg ctg cct gca ggc atc ttg ggg tct ggg ttt gcc ctg aag gtt        960
Phe Ala Leu Pro Ala Gly Ile Leu Gly Ser Gly Phe Ala Leu Lys Val
305         310         315         320
```

```
cag gag cag cac agg cag aag cac ttt gag aag agg cgg aac ccg gca        1008
Gln Glu Gln His Arg Gln Lys His Phe Glu Lys Arg Arg Asn Pro Ala
        325         330         335
```

```
gca ggc ctg atc cag tcg gcc tgg aga ttc tac gcc acc aac ctc tcg        1056
Ala Gly Leu Ile Gln Ser Ala Trp Arg Phe Tyr Ala Thr Asn Leu Ser
        340         345         350
```

cgc aca gac ctg cac tcc acg tgg cag tac tac gag cga acg gtc acc   1104
Arg Thr Asp Leu His Ser Thr Trp Gln Tyr Tyr Glu Arg Thr Val Thr
      355   360   365

gtg ccc atg tac aga ctt atc ccc ccg ctg aac cag ctg gag ctg ctg   1152
Val Pro Met Tyr Arg Leu Ile Pro Pro Leu Asn Gln Leu Glu Leu Leu
      370   375   380

agg aac ctc aag agt aaa tct gga ctc gct ttc agg aag gac ccc ccg   1200
Arg Asn Leu Lys Ser Lys Ser Gly Leu Ala Phe Arg Lys Asp Pro Pro
385   390   395   400

ccg gag ccg tct cca agc cag aag gtc agt ttg aaa gat cgt gtc ttc   1248
Pro Glu Pro Ser Pro Ser Gln Lys Val Ser Leu Lys Asp Arg Val Phe
           405   410   415

tcc agc ccc cga ggc gtg gct gcc aag ggg aag ggg tcc ccg cag gcc   1296
Ser Ser Pro Arg Gly Val Ala Ala Lys Gly Lys Gly Ser Pro Gln Ala
           420   425   430

cag act gtg agg cgg tca ccc agc gcc gac cag agc ctc gag gac agc   1344
Gln Thr Val Arg Arg Ser Pro Ser Ala Asp Gln Ser Leu Glu Asp Ser
           435   440   445

ccc agc aag gtg ccc aag agc tgg agc ttc ggg gac cgc agc cgg gca   1392
Pro Ser Lys Val Pro Lys Ser Trp Ser Phe Gly Asp Arg Ser Arg Ala
           450   455   460

cgc cag gct ttc cgc atc aag ggt gcc gcg tca cgg cag aac tca gaa   1440
Arg Gln Ala Phe Arg Ile Lys Gly Ala Ala Ser Arg Gln Asn Ser Glu
465   470   475   480

gaa gca agc ctc ccc gga gag gac att gtg gat gac aag agc tgc ccc   1488
Glu Ala Ser Leu Pro Gly Glu Asp Ile Val Asp Asp Lys Ser Cys Pro
           485   490   495

tgc gag ttt gtg acc gag gac ctg acc ccg ggc ctc aaa gtc agc atc   1536
Cys Glu Phe Val Thr Glu Asp Leu Thr Pro Gly Leu Lys Val Ser Ile
           500   505   510

aga gcc gtg tgt gtc atg cgg ttc ctg gtg tcc aag cgg aag ttc aag   1584
Arg Ala Val Cys Val Met Arg Phe Leu Val Ser Lys Arg Lys Phe Lys
           515   520   525

gag agc ctg cgg ccc tac gac gtg atg gac gtc atc gag cag tac tca   1632
Glu Ser Leu Arg Pro Tyr Asp Val Met Asp Val Ile Glu Gln Tyr Ser
           530   535   540

gcc ggc cac ctg gac atg ctg tcc cga att aag agc ctg cag tcc agg   1680

17/150

```
Ala Gly His Leu Asp Met Leu Ser Arg Ile Lys Ser Leu Gln Ser Arg
545             550         555         560


caa gag ccc cgc ctg cct gtc cag cag ggg aca aga acg ggg tgg gct    1728
Gln Glu Pro Arg Leu Pro Val Gln Gln Gly Thr Arg Thr Gly Trp Ala
        565         570         575


tct ggg aca aag ccc act gtg gcc cat ggt ggg agt gca ggg ggt gtg    1776
Ser Gly Thr Lys Pro Thr Val Ala His Gly Gly Ser Ala Gly Gly Val
        580         585         590


tgg gcg ggg cct cct ccc cac cca cgt cgg cct ctg tca gct tct gtt    1824
Trp Ala Gly Pro Pro Pro His Pro Arg Arg Pro Leu Ser Ala Ser Val
        595         600         605


gtg tct tca caa agt ctg ttt taa                         1848
Val Ser Ser Gln Ser Leu Phe
        610         615
```

<210> 6
<211> 615
<212> PRT
<213> Homo sapiens

<400> 6

```
Met Val Gln Lys Ser Arg Asn Gly Gly Val Tyr Pro Gly Pro Ser Gly
1           5           10          15


Glu Lys Lys Leu Lys Val Gly Phe Val Gly Leu Asp Pro Gly Ala Pro
        20          25          30


Asp Ser Thr Arg Asp Gly Ala Leu Leu Ile Ala Gly Ser Glu Ala Pro
        35          40          45


Lys Arg Gly Ser Ile Leu Ser Lys Pro Arg Ala Gly Gly Ala Gly Ala
        50          55          60


Gly Lys Pro Pro Lys Arg Asn Ala Phe Tyr Arg Lys Leu Gln Asn Phe
65          70          75          80


Leu Tyr Asn Val Leu Glu Arg Pro Arg Gly Trp Ala Phe Ile Tyr His
        85          90          95
```

Ala Tyr Val Phe Leu Leu Val Phe Ser Cys Leu Val Leu Ser Val Phe
　　　　100　　　　　105　　　　　110

Ser Thr Ile Lys Glu Tyr Glu Lys Ser Ser Glu Gly Ala Leu Tyr Ile
　　　　115　　　　　120　　　　　125

Leu Glu Ile Val Thr Ile Val Val Phe Gly Val Glu Tyr Phe Val Arg
　　　　130　　　　　135　　　　　140

Ile Trp Ala Ala Gly Cys Cys Cys Arg Tyr Arg Gly Trp Arg Gly Arg
145　　　　　150　　　　　155　　　　　160

Leu Lys Phe Ala Arg Lys Pro Phe Cys Val Ile Asp Ile Met Val Leu
　　　　165　　　　　170　　　　　175

Ile Ala Ser Ile Ala Val Leu Ala Ala Gly Ser Gln Gly Asn Val Phe
　　　　180　　　　　185　　　　　190

Ala Thr Ser Ala Leu Arg Ser Leu Arg Phe Leu Gln Ile Leu Arg Met
　　　　195　　　　　200　　　　　205

Ile Arg Met Asp Arg Arg Gly Gly Thr Trp Lys Leu Leu Gly Ser Val
　　　210　　　　　215　　　　　220

Val Tyr Ala His Ser Lys Glu Leu Val Thr Ala Trp Tyr Ile Gly Phe
225　　　　　230　　　　　235　　　　　240

Leu Cys Leu Ile Leu Ala Ser Phe Leu Val Tyr Leu Ala Glu Lys Gly
　　　　245　　　　　250　　　　　255

Glu Asn Asp His Phe Asp Thr Tyr Ala Asp Ala Leu Trp Trp Gly Leu
　　　　260　　　　　265　　　　　270

Ile Thr Leu Thr Thr Ile Gly Tyr Gly Asp Lys Tyr Pro Gln Thr Trp
　　　275　　　　　280　　　　　285

Asn Gly Arg Leu Leu Ala Ala Thr Phe Thr Leu Ile Gly Val Ser Phe.

290   295   300

Phe Ala Leu Pro Ala Gly Ile Leu Gly Ser Gly Phe Ala Leu Lys Val
305   310   315   320

Gln Glu Gln His Arg Gln Lys His Phe Glu Lys Arg Arg Asn Pro Ala
            325   330   335

Ala Gly Leu Ile Gln Ser Ala Trp Arg Phe Tyr Ala Thr Asn Leu Ser
            340   345   350

Arg Thr Asp Leu His Ser Thr Trp Gln Tyr Tyr Glu Arg Thr Val Thr
            355   360   365

Val Pro Met Tyr Arg Leu Ile Pro Pro Leu Asn Gln Leu Glu Leu Leu
            370   375   380

Arg Asn Leu Lys Ser Lys Ser Gly Leu Ala Phe Arg Lys Asp Pro Pro
385   390   395   400

Pro Glu Pro Ser Pro Ser Gln Lys Val Ser Leu Lys Asp Arg Val Phe
            405   410   415

Ser Ser Pro Arg Gly Val Ala Ala Lys Gly Lys Gly Ser Pro Gln Ala
            420   425   430

Gln Thr Val Arg Arg Ser Pro Ser Ala Asp Gln Ser Leu Glu Asp Ser
            435   440   445

Pro Ser Lys Val Pro Lys Ser Trp Ser Phe Gly Asp Arg Ser Arg Ala
            450   455   460

Arg Gln Ala Phe Arg Ile Lys Gly Ala Ala Ser Arg Gln Asn Ser Glu
465   470   475   480

Glu Ala Ser Leu Pro Gly Glu Asp Ile Val Asp Asp Lys Ser Cys Pro
            485   490   495

20/150

Cys Glu Phe Val Thr Glu Asp Leu Thr Pro Gly Leu Lys Val Ser Ile
        500   505   510

Arg Ala Val Cys Val Met Arg Phe Leu Val Ser Lys Arg Lys Phe Lys
        515   520   525

Glu Ser Leu Arg Pro Tyr Asp Val Met Asp Val Ile Glu Gln Tyr Ser
        530   535   540

Ala Gly His Leu Asp Met Leu Ser Arg Ile Lys Ser Leu Gln Ser Arg
545   550   555   560

Gln Glu Pro Arg Leu Pro Val Gln Gln Gly Thr Arg Thr Gly Trp Ala
        565   570   575

Ser Gly Thr Lys Pro Thr Val Ala His Gly Gly Ser Ala Gly Gly Val
        580   585   590

Trp Ala Gly Pro Pro Pro His Pro Arg Arg Pro Leu Ser Ala Ser Val
        595   600   605

Val Ser Ser Gln Ser Leu Phe
        610   615

<210> 7
<211> 872
<212> PRT
<213> Homo sapiens

<400> 7

Met Val Gln Lys Ser Arg Asn Gly Gly Val Tyr Pro Gly Pro Ser Gly
1   5   10   15

Glu Lys Lys Leu Lys Val Gly Phe Val Gly Leu Asp Pro Gly Ala Pro
        20   25   30

Asp Ser Thr Arg Asp Gly Ala Leu Leu Ile Ala Gly Ser Glu Ala Pro
        35   40   45

Lys Arg Gly Ser Ile Leu Ser Lys Pro Arg Ala Gly Gly Ala Gly Ala
   50   55   60

Gly Lys Pro Pro Lys Arg Asn Ala Phe Tyr Arg Lys Leu Gln Asn Phe
65   70   75   80

Leu Tyr Asn Val Leu Glu Arg Pro Arg Gly Trp Ala Phe Ile Tyr His
        85   90   95

Ala Tyr Val Phe Leu Leu Val Phe Ser Cys Leu Val Leu Ser Val Phe
      100   105   110

Ser Thr Ile Lys Glu Tyr Glu Lys Ser Ser Glu Gly Ala Leu Tyr Ile
    115   120   125

Leu Glu Ile Val Thr Ile Val Val Phe Gly Val Glu Tyr Phe Val Arg
   130   135   140

Ile Trp Ala Ala Gly Cys Cys Cys Arg Tyr Arg Gly Trp Arg Gly Arg
145   150   155   160

Leu Lys Phe Ala Arg Lys Pro Phe Cys Val Ile Asp Ile Met Val Leu
    165   170   175

Ile Ala Ser Ile Ala Val Leu Ala Ala Gly Ser Gln Gly Asn Val Phe
    180   185   190

Ala Thr Ser Ala Leu Arg Ser Leu Arg Phe Leu Gln Ile Leu Arg Met
   195   200   205

Ile Arg Met Asp Arg Arg Gly Gly Thr Trp Lys Leu Leu Gly Ser Val
   210   215   220

Val Tyr Ala His Ser Lys Glu Leu Val Thr Ala Trp Tyr Ile Gly Phe
225   230   235   240

Leu Cys Leu Ile Leu Ala Ser Phe Leu Val Tyr Leu Ala Glu Lys Gly
          245   250   255

Glu Asn Asp His Phe Asp Thr Tyr Ala Asp Ala Leu Trp Trp Gly Leu
          260   265   270

Ile Thr Leu Thr Thr Ile Gly Tyr Gly Asp Lys Tyr Pro Gln Thr Trp
          275   280   285

Asn Gly Arg Leu Leu Ala Ala Thr Phe Thr Leu Ile Gly Val Ser Phe
     290   295   300

Phe Ala Leu Pro Ala Gly Ile Leu Gly Ser Gly Phe Ala Leu Lys Val
305   310   315   320

Gln Glu Gln His Arg Gln Lys His Phe Glu Lys Arg Arg Asn Pro Ala
          325   330   335

Ala Gly Leu Ile Gln Ser Ala Trp Arg Phe Tyr Ala Thr Asn Leu Ser
          340   345   350

Arg Thr Asp Leu His Ser Thr Trp Gln Tyr Tyr Glu Arg Thr Val Thr
          355   360   365

Val Pro Met Tyr Ser Ser Gln Thr Gln Thr Tyr Gly Ala Ser Arg Leu
     370   375   380

Ile Pro Pro Leu Asn Gln Leu Glu Leu Leu Arg Asn Leu Lys Ser Lys
385   390   395   400

Ser Gly Leu Ala Phe Arg Lys Asp Pro Pro Pro Glu Pro Ser Pro Ser
          405   410   415

Lys Gly Ser Pro Cys Arg Gly Pro Leu Cys Gly Cys Cys Pro Gly Arg
          420   425   430

Ser Ser Gln Lys Val Ser Leu Lys Asp Arg Val Phe Ser Ser Pro Arg
          435   440   445

Gly Val Ala Ala Lys Gly Lys Gly Ser Pro Gln Ala Gln Thr Val Arg
  450   455   460

Arg Ser Pro Ser Ala Asp Gln Ser Leu Glu Asp Ser Pro Ser Lys Val
465   470   475   480

Pro Lys Ser Trp Ser Phe Gly Asp Arg Ser Arg Ala Arg Gln Ala Phe
          485   490   495

Arg Ile Lys Gly Ala Ala Ser Arg Gln Asn Ser Glu Glu Ala Ser Leu
          500   505   510

Pro Gly Glu Asp Ile Val Asp Asp Lys Ser Cys Pro Cys Glu Phe Val
          515   520   525

Thr Glu Asp Leu Thr Pro Gly Leu Lys Val Ser Ile Arg Ala Val Cys
          530   535   540

Val Met Arg Phe Leu Val Ser Lys Arg Lys Phe Lys Glu Ser Leu Arg
545   550   555   560

Pro Tyr Asp Val Met Asp Val Ile Glu Gln Tyr Ser Ala Gly His Leu
          565   570   575

Asp Met Leu Ser Arg Ile Lys Ser Leu Gln Ser Arg Val Asp Gln Ile
          580   585   590

Val Gly Arg Gly Pro Ala Ile Thr Asp Lys Asp Arg Thr Lys Gly Pro
          595   600   605

Ala Glu Ala Glu Leu Pro Glu Asp Pro Ser Met Met Gly Arg Leu Gly
          610   615   620

Lys Val Glu Lys Gln Val Leu Ser Met Glu Lys Lys Leu Asp Phe Leu
625   630   635   640

Val Asn Ile Tyr Met Gln Arg Met Gly Ile Pro Pro Thr Glu Thr Glu
     645   650   655

Ala Tyr Phe Gly Ala Lys Glu Pro Glu Pro Ala Pro Pro Tyr His Ser
     660   665   670

Pro Glu Asp Ser Arg Glu His Val Asp Arg His Gly Cys Ile Val Lys
     675   680   685

Ile Val Arg Ser Ser Ser Ser Thr Gly Gln Lys Asn Phe Ser Ala Pro
  690   695   700

Pro Ala Ala Pro Pro Val Gln Cys Pro Pro Ser Thr Ser Trp Gln Pro
705   710   715   720

Gln Ser His Pro Arg Gln Gly His Gly Thr Ser Pro Val Gly Asp His
     725   730   735

Gly Ser Leu Val Arg Ile Pro Pro Pro Pro Ala His Glu Arg Ser Leu
     740   745   750

Ser Ala Tyr Gly Gly Gly Asn Arg Ala Ser Met Glu Phe Leu Arg Gln
     755   760   765

Glu Asp Thr Pro Gly Cys Arg Pro Pro Glu Gly Asn Leu Arg Asp Ser
    770   775   780

Asp Thr Ser Ile Ser Ile Pro Ser Val Asp His Glu Glu Leu Glu Arg
785   790   795   800

Ser Phe Ser Gly Phe Ser Ile Ser Gln Ser Lys Glu Asn Leu Asp Ala
     805   810   815

Leu Asn Ser Cys Tyr Ala Ala Val Ala Pro Cys Ala Lys Val Arg Pro
     820   825   830

Tyr Ile Ala Glu Gly Glu Ser Asp Thr Asp Ser Asp Leu Cys Thr Pro
     835   840   845

Cys Gly Pro Pro Pro Arg Ser Ala Thr Gly Glu Gly Pro Phe Gly Asp
    850   855   860

Val Gly Trp Ala Gly Pro Arg Lys
865   870

<210> 8
<211> 27
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 8
acctctgcgg attgcatcgg tgtgtgg   27

<210> 9
<211> 25
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 9
ggatgacttg catgaggctg ggtgg   25

<210> 10
<211> 35
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 10
agcgaattct caatgggcga ggacacggac acgcg   35

<210> 11
<211> 34
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 11
tccggatcct cctgtgtcca cacactgcca cctc   34

<210> 12
<211> 35
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 12
aatattaaaa cagactttgt gaagacacaa cagaa   35

<210> 13
<211> 33
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 13
atcagaattc acatggtgca gaagtcgcgc aac   33

<210> 14
<211> 42
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 14
tgacagatct taaaacagac tttgtgaaga cacaacagaa gc   42

<210> 15
<211> 17
<212> DNA
<213> Artificial

<220>

<223> oligonucleotide

<400> 15
gtgtggatgc tgccccg   17

<210> 16
<211> 18
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 16
tcccgcctca aaacctcg   18

<210> 17
<211> 35
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 17
actagaattc agccagaagg tcagtttgaa agatc   35

<210> 18
<211> 27
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 18
atcaggatcc gcgccgcctc acttcct   27

<210> 19
<211> 35
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 19
actagaattc agccagaagg tcagtttgaa agatc   35

<210> 20
<211> 36
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 20
actaggatcc ctactggact gcaggctctt aattcg   36

<210> 21
<211> 31
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 21
aactagaatt cgtggaccag atcgtggggc g   31

<210> 22
<211> 27
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 22
atcaggatcc gcgccgcctc acttcct ·   27

<210> 23
<211> 28
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 23
aatcagaatt ccaagagccc cgcctgcc   28

<210> 24
<211> 22
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 24
gcacgatgca cagttgaagt ga   22

<210> 25
<211> 29
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 25
tactgaattc ttcctggtgt ccaagcgga   29

<210> 26
<211> 37
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 26
acatggatcc tcacctggac tgcaggctct taattcg   37

<210> 27
<211> 37
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 27
acatgaattc cagaaggtca gtttgaaaga tcgtgtc   37

<210> 28
<211> 31
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 28
tgatggatcc tcaccgcatg acacacacgg c   31

<210> 29
<211> 30
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 29
cacggatcca gcagccagaa ggtcagtttg   30

<210> 30
<211> 31
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 30
cacgaattct ggacggacca aactgcgtat a   31

<210> 31
<211> 32
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 31
agcggatcca tgggcgagga cacggacacg cg   32

<210> 32
<211> 34

<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 32
tccgaattct cctgtgtcca cacactgcca cctc   34

<210> 33
<211> 25
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 33
gagcctcgag gacagcccca gcaag   25

<210> 34
<211> 35
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 34
aagaattctg taaaaggtca ctgccaggag ccccc   35

<210> 35
<211> 31
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 35
cggaattccc atggtgcaga agtcgcgcaa c   31

<210> 36
<211> 32
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide

<400> 36
ccagatcttg taaaaggtca ctgccaggag cc   32

<210> 37
<211> 151830
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (10)..(10)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (60402)..(60402)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (61110)..(61110)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (98207)..(98207)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (98208)..(98208)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (98209)..(98209)
<223> n = a or c or g or t

<220>

<221> misc_feature
<222> (98210)..(98210)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (98211)..(98211)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (99743)..(99743)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (108055)..(108055)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (109094)..(109094)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (109125)..(109125)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (118900)..(118900)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (119024)..(119052)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (119053)..(119112)

<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (119115)..(119121)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (119123)..(119123)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (141674)..(141674)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (142063)..(142063)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (142137)..(142137)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (142967)..(142967)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (143077)..(143077)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (143506)..(143506)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (143587)..(143587)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (143629)..(143629)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (149079)..(149079)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (5363)..(5363)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (8080)..(8080)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (10296)..(10296)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (14528)..(14528)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (15336)..(15336)
<223> n = a or c or g or t

<220>

<221> misc_feature
<222> (15457)..(15457)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (16288)..(16288)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (16306)..(16307)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (16316)..(16316)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (16397)..(16397)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (56012)..(56012)
<223> n = a or c or g or t

<220>
<221> misc_feature
<222> (57662)..(57662)
<223> n = a or c or g or t

<220>
<221> 5'UTR
<222> (1)..(54)
<223> exon 1

<220>
<221> exon
<222> (55)..(124)

<223> exon 1

<220>
<221> exon
<222> (91147)..(91244)
<223> exon 2

<220>
<221> exon
<222> (93669)..(93834)
<223> exon 3

<220>
<221> exon
<222> (96310)..(96422)
<223> exon 4

<220>
<221> exon
<222> (99546)..(99723)
<223> exon 5

<220>
<221> exon
<222> (125441)..(125605)
<223> exon 6

<220>
<221> exon
<222> (141176)..(141345)
<223> exon 7

<220>
<221> exon
<222> (145556)..(145647)
<223> exon 8

<220>
<221> exon
<222> (151316)..(151608)
<223> exon 9

<220>
<221> 3'UTR
<222> (151609)..(151829)
<223> exon 9

<220>
<221> allele
<222> (84026)..(84026)
<223> complement of biallelic marker 99-24169/139

<220>
<221> allele
<222> (109663)..(109663)
<223> complement of biallelic marker 24-257/320

<220>
<221> allele
<222> (117460)..(117460)
<223> complement of biallelic marker 99-24175/218

<220>
<221> allele
<222> (99505)..(99505)
<223> biallelic marker 24-247/216

<400> 37
attgcatcgn tgtgtggcgg cggggcatgc ccagagcacc gggcacggcc ttca atg   57
                                                          Met
                                                           1

ggc gag gac acg gac acg cgg aaa att aac cac agc ttc ctg cgg gac   105
Gly Glu Asp Thr Asp Thr Arg Lys Ile Asn His Ser Phe Leu Arg Asp
         5   10   15

cac agc tat gtg act gaa g gtaacgtacg tgttgtctga gacccctccg   154
His Ser Tyr Val Thr Glu
    20

gccggccgcg gcgtggggat gccgtcgcac cgaatgccct ccgaaggttt ggaccgcgcg   214

atgtgtgtcg tgtcccccg ccccacccca ccccaccccca tcccaccccca ccccaccccca   274

tcccatccca ccctgcccgg ggcccaggag ggagggagcc cgagggtacc ggcctccgct   334

gcccagcgcc ggcacagggc agcgccctcc tccgcgccgc cctccgggag gcagctttcc   :

tctcccaagc caggtggcat cctgattcgg ccctgaccat aatttttttaa aaggccacgg   454

ctgtggctaa tctggtgaag aaatctcggg gaaatttaat ggtttaaatc ctggatttgc   514

catttcagcc ctgcccaaag cccgcagaat tttctaggct gccctctccc tggagaagaa   574

gagggacccg ggggaaaaa aacataatcc attgccagat cctcctggga ggcccgcctg   634

cccgggcccc tccctgtcct ccagaggcag ggtccctgag tgggagggag aaggcggctg   694

gtttgggggct ggccttttta ttcctggtga gttatattga dacaggagca gctgggctaa   754

ctgtcgggat tttccaaaaa agtgggacat gccatcccaa acaggccctg tttaaaatcc   814

cctaagttgg ccctacaagc ccaaccccca cccccaccct acccccgagg ctggtgggtc   874

agcgcccctc tcttacaggc ctggaacttc cggggccccc ctggtctgcc tcgctagggg   934

aacagtgggg acagcttccg tgcgcaggca gggcccgcgg agtgaccccg atggaggatg   994

gggaccggga ggtctgggct cggggccgcc tgtgctggag ccctgcccga gtgcggggac   1054

tgtcagccgc taacccacgg gctggcggcc cggccgcaga agtgtgcgcg gattccccgg   1114

gtgggtgccc cagtgggagg ggccctgggc acgggtcccg cggggcaggt gcgcgtgggt   1174

gcctgtgtca gggagaccga gtgggccagg cggcggagac cgggctcctg cggctgggtc   1234

cgcctcctcg aagcctggct ctgccggaaa tgaggccgag cggagccgga gccccgcgga   1294

ggcccggggga gcgcagcgcg agcgcgggcg cgggcgggct cggggcgccc tggcccggga   1354

ggcagaggct gggcgtggga cctgggcgga gggaggctgc gggggccgcg cccgctcccg   1414

gcgggagaac cgctgagtca cgcacgcttc gccgccgggt gtgtgcgaga gaggggcagg   1474

gctgcccggg cctccgggcc ggtggggctc tgacccggcc gcggctttgg gaggcccggg   1534

gagctgagag cggtcctttg tcgcctgctt cggcgaggct gagtcgggat cagcgtgggt   1594

ccgggatgtg gtttctgctc gcagcctgca gcgacagagg gttggaggaa gccgccgggt   1654

tgctggcccg tgcctcggtg gcctggctcg ggccgagagc ggatcttggc aggttgcccc   1714

gctgctccca ggctcgctgt ggtctggctt cctggagcaa gcctctgttt gctcatctct   1774

acgttggggga tgacggtggg atggggcgca gggctcgttg tgggaccagg cgtaaaaagc   1834

gccatggtgg acattttcaa acattaattc cctctgcacc ctgcccgtcc ccttttcttt 1894

cataaattca ccagccctca gcagggcaca ggaacgggga cggcacagtt ctggaggtca 1954

gagcagtgct atccaatcct tcatccagac acgagatatt taccgagcac ctgctgcatg 2014

ccgggcactg ttttatccct ggggactgga caaagactcc ctgcccttgt gcggcctgaa 2074

ttctatcagg gagctatatg accttgaggt ctgtcttctc accagggctc agtctcccca 2134

tctgtaaaat gggagtgaat cctgcctaca gggtctggag gtttctgtga ggagcaggtg 2194

caacggtgtt gaaggagccg ttcagagcta tgcattgcta acgtgcagcc aaaggatgct 2254

gagcacctgc tgtgtgctgg gacctcatac gaaggctcac ctacgcctta tccccacctt 2314

gagatgaaca aaccaaggcc tggccttgtg cctggtccag accgagtgcc agtgtgtgca 2374

gggcataggg ctcaggtgct gcggatgcag agagcaggat cggaacaaga aacaataata 2434

atcattataa taggtagaat tctggcctcc ctaatgaaaa acacactttc acactgttgc 2494

atcctgacta tatttcatgc tcagagcaca gggaaggtca cagatttgaa tgtcagaatg 2554

tcagacttga atcatgttaa agtcctgcct ctgactcctg actgctgtgc agccttggac 2614

aagttactac accttcctga gcttcacttt ccctttgtaa agggagaaat aataacgacc 2674

tttcatacag ggttgctggg atgatcagtg attttgctaa tatcaaaagt gcccagcaca 2734

gtgcttgggt tgttggaggc attgaacaca cggcattgtt attatttata tgccttgtaa 2794

ctggaagagc ctgtgggcaa acagtggatg ctaaaattca gtttgtggaa gaaccaggtg 2854

cacaaactcc tgttctacct gtggttgagt ctacactccc ccaccacacc ccagctgctc 2914

tgatctacct cctgttcctt gagcaggcca ttttctttct tgcttcaggg catttgcaat 2974

ggctgttccc tggaataccc acctcctgcc tttctcacca ctgactcttt ctcatccttt 3034

gggcccatg tccaatgtca tctttgcccg tgggagccct gcttgggttc ctgagtctct 3094

tgtaaaatct caaacatctt aggaagagtt taggttttgt tagtcattca catcttggtg 3154

tgaattcgtc agagcaggtt ggattttttt ttttttttt ttttttttg gtggcagggc 3214

tgggtggctt actcttggct gggctcaact gcattgaggg ttatggtgat gattaggtgt 3274

acctgcaggc cacctggggg cacagagaac tttgcatgaa tggggtcagg gtgtgggggag 3334

agcagtgtag ctgatagggc actgggccct ggaccctgga ccctggaggg tgctaggaag 33?

tctccatcta gttagacatt tctcaagagc tggatatggt tccaggaagg actcttcctg 3454

gctctgttct ttctctttt gcggcaggcc tcagtactta gctttagagt gagttgaata 3514

agcacttcca gactagactg aacttacaaa acccatccat ccttcctttg cttagcacca 3574

tttgccaagc acatcctgcc ctgggcagca gtgatgacca agacacagga gctcagccaa 3634

ggggaggtag ttcaggctga ccaggtagat cctggcagtg actgggtctt tctggggagc 3694

aacagtcact ctcatgtgcc tgacaggtaa ggcacttccg gagcacactt ttcagctgag 3754

gccagaggca cagcttcccc ttgtttgagc atctcagcca tcacacactg ttggacactc 3814

atgctttttg catctgcata aaggatgtac ccatgttttc ctaactccca tccctggatg 3874

tcctgtgtga tttcagagta gtctgtttat tcccacagag ttgtcctgat tttatagttg 3934

aggaagtgaa gggtgcttgg gaattgctaa ggtcatcatg gggtcctgag gctgtctgaa 3994

cgcagcaggc aggcaggttt tcctgcatgg aattgtctgc aggttttgaa ctggttgtgc 4054

cctggatacc atctactttc tgcccaggaa accacactga agaggggatg ctgcttgtgg 4114

gagactcagc attcagtgaa atctgcaccc ttatggtgga cgttgcagct gatctccaca 4174

acagttagtc tctcttcttc caaggagaac acatatggtt cctagtaaga gatctcaggc 4234

catagctgga tgtgatcagt gcaaggatga tctcattccc cttgcagtga ctggttccag 4294

aatggatgtg ggagtcagtt ctggaggttg agtggaaagt agggagaacc acaggtagtt 4354

ggtccctctc ttgtgatggg aacagggaaa ccttgtggtg gctggcagcc atctgacacc 4414

atgaggggag caagtcttag gccaccaccg ttgatggcag ggcagagagt gagtgagatc 4474

caggacatag aggcctgatg tccaggccgc ctctgaactt ccagttacat gagctgttac 4534

ttttcctttt cgttgtgcac tttcaagtct ccgttacttg cagcccatag caccccaact 4594

cgtacagccc tgactgctta tcaagaaaac caggaggctg atctgtaacc cacagctaag 4654

actcgagata cataaaaccc agagggattt ttgtttgctt tctgttttga gaaccctctt 4714

tcatttcact caagtcaagg ttgccaattt ctggttttcc ctcctcagtc ctattgagga 4774

ggtattttg gtcagataag agagcctgag atctggcatc gggagatctg ggttcctggt 4834

ggggtctgac cctgggtctg taatattggg caggtcacac ggtctctctg agcctcagtt   4894

tattcttaat agatcagtaa gtgatgatgt ctattcttta ggggccagag ttagactagc   4954

ccttagaact gtcatcagac tggctagcct aacttccacc ccaacctatg gggaaactga   5014

ggctaagagg ggggacatta gtggtggcac agagggagat tagggagagt cagcctttga   5074

cttttgaaaa tcaagatgtg gactgttcag attctgtgtt cctttcgctt ctgtttggaa   5134

acgccactta cataagcttc ccttgggctt cacagcgagt gtgggctcca tttcagtgct   5194

ggggtgccct ccatcaaatc acatcacttt ctgagcctca gtttccctgc actgcctggt   5254

gccctgggtt gtcatgaggc tgtaaggagc caagggcatg tggactctga agttctacac   5314

gtgtaaaagg cgactgctgt caatttcccc aaattgtagt gtaggccanc tcccacgccc   5374

ctgctgtaag caatgtgctc ctttcttttt aatcaacccg aacttaaagc ttggcgcagt   5434

cacagagcac ggttttgtc attttctttc tggaagatga aaatcaaatt ctaataaaat   5494

ttttccactc catctcctga ctgttgtcat ttgctacact ttttagtgtt tatccttaaa   5554

gcttgcagag ctaagggatg tttggtaaga agtgtttagg ccttgagact ggaagagccg   5614

ctgtatgaag cgctaggctc catggagagt gtgatgggga gtaagagaag gagagtgaac   5674

tcctgtgagt ccaccaagca gagggacata ctctcagcaa ctggggtatt tccttccagt   5734

ctttttttaa tgcccatgtc tgtttttaat gaaaactgta atctgtctgt atcaacaatt   5794

ttgaaggcta cttttctagt ttggcatgag attataggaa ttttccaggg ctttgctcca   5854

gggctggctt catggatatg caacctgtgt ggtcatctag gtccccacac tcagaaggac   5914

ctgtgcttgg gttcatgttc tgctgttact atcttgaaat ttttaagaat ttcactttgg   5974

atcctgtgtt ttgtaagcga aatctgatgg gacgggggag cctgggaatg agcagagggg   6034

tacgtgcggc aggcgagtct gtggttacac acattggctc ccacagcacg ctaccctgtg   6094

ttcacttgag cgtctgagcc ccacgcacag tggacagctc atgcaccttc tcagtgcgtc   6154

tgtagtttca caggcagggg ccatgctttc aactgatgct ccaaggcatt gatgttctca   6214

tgcagtgact tctaagaaac atgaatgacg caggaaccct atggtgtcct ttcttaacgt   6274

gtgttacgtg cccatatttg ccaatcgctg acactgaaaa tgattacaca gaagggaagg   6334

gaaaaagagg gcacctatag ttccttttcc tcctagtcct tccttgttta ttattgaacc 6394

aagggtagag ggtgttggaa gaatgtacac atatccagaa atgaaataag aacagttaag 6454

ttagtttcct ctgctctggt aagaacaaaa tccatatgcg aaatataact tgtgcatttt 6514

ggtgagtcta cattccagtt acgtgctctt atgtttgcat ttaaaattgg aggtgcacac 6574

tagaatggtg agtgataaaa tgcacgctga gagtttaagc tttttttttt ttaaatttga 6634

attgacatta aatagcaaat aacaccatga caaaatatgg aaggcatgaa aaggctttgt 6694

atcttagcac ctttaatgat gcttttcctt tgcttttga ataagaggct ctgcattttc 6754

attttttccct gtgccccacg aattataggg ttggccctgc tttgctggaa ctctgggtag 6814

ggtgaactcc ttggccctgc cttctacctc cttggctttc gtgattggtg gaaatggtga 6874

gagcctgcca tccattgggc agctcttccc tatggggagg ggttacaata ttaaatgtcc 6934

gtgctcctct ctcacccatt gggtccatgg gcctctgact tccaggttgc tctacagggg 6994

agaggccaac agttatctta ttttacaagc tagaagttag acctacctct ccccgcagga 7054

ccaaggggtg gggaggtgaa gtaggggtcc atagctcttt tttttcctac aggtttacca 7114

ttaataaagc agattttttt attcctgtct tgcggccagt cttttctgtg taatcccaag 7174

tcccagcaag gaagaggggt gactggttac cttggccccg cccccaagtc acacagtaca 7234

cgtattgaca accatcattt cattggctgc atactattcc tgtgatacat gtgtcatcat 7294

tcagtagttc aattaatcat ttccttatgg ctggatattt agttccctcc cttccctccc 7354

tccctcccctt cctcccttcc ttccttctct ctctctctgt ctctccccca cacactttct 7414

tattttcata actaacactg caggaatgaa caccatttgt gtgtgtgaag acccctact 7474

cccatcgttc cccttaacc ttggaatgat gctcttcaga aggaattcca cacgtgctat 7534

ttcatataaa gatcactagc attttttaatg ttgttgacac acattggcag attattctcc 7594

agaaagtttt tctctttaac cacatgctga tcaacattag gtagtctaat ttgtttgacc 7654

tttgcaaata tcaaagatga aaaatatttg ttgtaattca cgtctgcata ccaatgaggt 7714

tgaacatttt ttccttttgt tcagcgggta ttggctgatc cctgttatgt gccagggtga 7774

cattagattc tagacataca aagttgaaga gcaaggctgt gtctgccttg aaatgtggac 7834

tctcctctcc cagtgtcttg ggtgccactg cgggacctag ctacttctca ggagagagtc   7894

tgaagctgct ggaggagtct gtacatccct cagcaccctg gggagtcctg ttagttacac   7954

agggccttgc aaagacaggc atctcaccat taagcccttg agcagaatga tccaagtgga   8014

ctttaggatg aaataattac aaaacaaaca caatagccat tattatgatt caccatttat   8074

tggctntgta ctataatact atatgctgga catgaggctg cgtgcatctc attggtgatg   8134

ccccagacct gatgttgtgt atattatttc cccattttac agaggagaaa actgaggctg   8194

aggtgcttgt tcaatgtcac atggtttgta agggacagag ctgagttttg aatgcagcct   8254

gccaacccca cgctcctgac tgctacatta attggctggg acccacaggg cagggttagg   8314

tggcctgttc agttctgatt atgcaccaca cttaggaggt tttgggattt gaactagact   8374

acctggcttg gtgctcttgc tatctgtgtt gcgatgaaag gcaatcgaga ggggtcagca   8434

ggaggagaga cccccttcac ggcacaggta gatggcagtg gcagaggcca caagtggaca   8494

cgtggtccag ggactgaagg gcaggtggca tttccaggtt gggggggtgat gatgtgctgg   8554

gacatggtat tctagcgcat tctgggcagg aggaacggtg tgtgcaaagt ggcataacac   8614

ttgtcccctg acagtgtccg gctcctctgc ttgagaccag gaggcagtta gttagttgcc   8674

agccggcccg ggagcaggac acacctgggg gccctgtgc tgcccaggac aggcactgcc   8734

ctccttgcac agtggggggcc attgtcctcc agaacccagg gctgaatgtc ccattgaggc   8794

agaacaaagg ctgctcagag gttcccagct ggggtgtggg ctgccccaag cagggatggg   8854

atctccaact gcaggccaag ggcctcctcc aggctggcct ggcctcctgc agccccaccc   8914

ccaccctcc tcaggaccag gactgttgct gctggaggct ggacctgggc ttgggctccc   8974

aggcctgtgc tctgggtctg gcacagctgc cgtgcccttg gcagcttctt catccctgg   9034

gcaatttccc catctatgaa gcagagagag agcgagctcc caaccagcaa ggctttcagg   9094

cagaattgaa tgaaatagtg cacactctgt aggttaatct caataaaagg gagctctttc   9154

atgatcatga ttagcttctg aatgtttttt tacaatttca aaaaagtttt gatgcaaact   9214

ttcaaatttg tgccacttct gggccaaagt gtttaagaag ggagtgcacc ttccccctc   9274

cctctgtccc agagaaggga gagatgccgc tccctggagc ccctcatcac tctgtggaag   9334

ggactgctgg ccaactgtta caagaggaga aacttctttg catttgtgag aaaatagtct 9394

attgaactgc ttccaatcta tcaagatctt gctgtacttc cttcatttac tctcccctgc 9454

ttttggctga agaatttta ggcaaatcca agactcctgt cgtttccccg ttccatctgc 9514

aggcatctct gagtgttgag ggcatttctt gtagcccagt gctgttatcc cacctcacaa 9574

aacatatcct gattctttgt tacctaaatt ctggtccatt ttatgaacgt ccccagttgt 9634

ctgagaaatg tctcttatgg ttgggtggtt tggcccagga tccaaagtcc tgcacctgcg 9694

tttggctgtt ctgtctcttg tcttttctga cctagactca gcctccatcc ccttttcagg 9754

ctaccaactt gttgaagaca tttgttatta ttttatttta ttttttttaa gacggagttt 9814

cactctgtcg cccaggctgg agtgcaatgg cgtgatcttg gctcactgaa accccgcct 9874

cccgggttca agtgattctc ctgcctcagc atcctgagca gctgggacta catacaggtg 9934

cccaccacca cgcccgacta attttgtat ttttagtaga gacggggttt caccatgttg 9994

gtcaggctgg tcttgaactc ctgacctcag ataatctgcc ttcattatta ttttagagat 10054

tacagtgtca ctcccactgt ccctaatttg tgcctggatt ccatttgccc tgtgggtctg 10114

gaaggctgag aggtggttgc tgggacctgg gcatcggcct tggggctgcc cctctctcct 10174

ccaggacccc tttctgcaga gtggtgccct cgccactccc tggctgagtg atcttgggca 10234

agttgtccag ccaggccgtg cctgggtgac cacatctgag ctgggggtga gcgtggctgc 10294

ancatcctct ctgggatgtg gtgggtgttg aatgagatgg tgcatgccac gtgctccgtg 10354

ggcctggtgc ctgtgggtcc ctgtcttacc cccatgatgg ggatgtggca ggaactgggg 10414

tagccaccgc ctgcccacac agtgctcact ttctgtaggg gagacacccc tcagctggtc 10474

actacataca gcaggaccag cactttctga gggaagaggg atgttctctt gggaagtctg 10534

gatgctgaag acagtttgtt actctgatta ataccagtta caaagaaatc cccacattcc 10594

aggggttgat gtcatagaag tttatccctt tgtaacagtt cattgtggat gatcccagtt 10654

ggcccaggag tctcttccac agagtgatgc ggggctccag accttctca tctgtcagct 10714

cccatgtcct ctccattctc cggggaagag ggtatgggga aggtgcactc cctccttaaa 10774

cactttggcc cagacatggc acttgtgact tccctcacat tccattggcc agagctagtc 10834

acatggcccc acctaatgca aggggctcta ggaaatgtag tccctggctg ggcagcccag 108

tggctactct gcagtgggaa gaacctgcat cttggtggat gtcttgccat ctttgccaca 10954

tgaccccaca aaacaaacct ttacattctc agtccaaaaa accctactaa gaatcctgtg 11014

ctggagacac cctcactcaa cccctgaccc tcccctctcc ctgcttcagt gtccacacgt 11074

gcacggtgct gtgagatgca gagtccagag tcatgcggtg gctaggaggt cagggacgcc 11134

ttcctgggag aggcgatgtc tgagctgagt ctgcaaagcc aaataggtgg tgcccaggtg 11194

gatcaggtag gagagggatt ccgggcttcg gctgcagcag gggtaaaggc tggtgtcttg 11254

ggagagggca tcctgtgtag agaggggtct gtgggccact gagatttaga ggatgtgtgt 11314

ggggtggggt ggagtgggag aggagctgga gcgggatggg aagtgggagg caggactgtt 11374

tgtgaaaggc ttcaaatgcc gagataagga gtttggattg tatcctattg acattgtgga 11434

accagatgga gatggggcat ttccctttgt ttgaaagtat tttgatttct attggctgtc 11494

ttactacaaa aaacatatgt agtcatagca aaaagttcag aaaatttaga aagagaaaag 11554

gaggaaaaga aaatcctacc actgaaaata ttttggtata tgtgtttttg cctatgggta 11614

tacatactat ctaggtatat atatattcct acattttttt attcactgaa agatggtttt 11674

tgagcatcta ctgtgtgcgt atcctatttt gtaatcttta aaattttctc ttaatgatat 11734

gggagctttc tagcttagaa aataacacag cccattttct tagcttgctg ggacttctat 11794

aacacagtgc cacataccgg gcagttgaaa caacagagac ttaccgcctc acagtgctag 11854

agcttgggag tccaagatca aggtgttggc agggttgatt ccttctgagg cccctctcct 11914

tggcttatag atgaacatct ccctactgtg tcttcacatg gtctttcctg tgtgtgtctg 11974

tgtccttaga gggacaccag gcatattgag ttagggctca tccatatgac tgcattttac 12034

cttcgtcacc ttgttaaagg tccttttttgt caaacacagt cacattttga ggttctaggg 12094

gttaggactt caacaaagga atcttgggga gggggcacat ttcagcccaa agcacccgtc 12154

atcattggta atatcagtca catgcttctt ctatgtattt taaagagttc catgctggtg 12214

ggtatcagaa gttatggttg gtttaggatc atgagcagtg ttgtgagggc atctttgcac 12274

cttttgcgt gcatatttgg ttatttccct agggtgtgga atggctgctt ctgagagttt 12334

ggtctttctg aagtatcttc atctaatgtc aacttttcct gatgaccaaa cttggtacta 12394

acaactccct ttccccagag cattgctagt ggcgactaga tccaacatat ttaatatttg 12454

ccaatattat ggtaaaaatt gctgtttttt tttgtgtgtg tgacagaggc ttgctctgtt 12514

gctcaggctg gagtgcagtg tcgtgatctt ggctcactgc aacctctgcc tcccaggctc 12574

aagcaattct tgtctctcag tctcccaaga agctggcatt ataggctgtg ttcttttaaa 12634

gcatttttca gtgagattga acttccttta ttatatttat tgaccatggc atatattcaa 12694

ttgtaagttt ttttgtgcac cgttcttggc ctgtttctct actgtaattg tcatctctct 12754

tgcaaacact gacccttggt ttgttgtttc tggtagcatt gattttatgt ggttagatgt 12814

catgactctt gtcctgctga gcatggatct cccattccac aatcatgaga agaaccaaca 12874

atatggagga ggtgacaccg tgtagctttg gaggctaagt aaaaaatagg tcatgtgctt 12934

ctgccttgga gccagccacc atattgtgag gaagcccaag cagtttgtgg agaggcacat 12994

gcagagagga accaaggtcc tggttgagct gcctgcctaa tatccagcac caccttgcca 13054

gcaggtgagt gagccatctt acaggtagag cctccagccc tcaggcaagc catccatatg 13114

gaacagagat gagccattcc caccaagatc tacccaaact gcagattcat gaaccaaata 13174

aatggtttct gcttgaagcc attaagtttt gaagtgcttt gttacacagc agtgggtaac 13234

tggaagagtc atggattcct gacattgaat tcctggtcct cctccttctc aggctacttg 13294

tctagatgtt ctgttctctc catgattctg tggatccctc agagccttcc ggtaacttcc 13354

ttctttgctt gtgttagcct gggtcaatct ctgttgctta taactgacag acatgggaaa 13414

ccagccccag caatgagagg tgacccagct cagatcatga gacaggacag gaatccaggc 13474

ctttctgaaa catagcccag ggtcccatcc cacaacgtgt cagtagacac catgcctgct 13534

gggtcatgcc tgcttccgct gcaccctgca cccagctcag cacctgctat cttccaaagg 13594

ccattgctga ttgcttgtac acacctgtta gttcatgcac agacagcaaa gcacgtagtt 13654

gtgctgcctc cttgccttcc tgctatgatc tgaatgttta agtaccccct ccaaattcac 13714

aggttgaaat ccagaccccc aatgtgaggg tatttaaaag gtggggactt tgggagtgat 13774

gaggttgtga gggtggagcc ctcatgggtg ggattagtgc ccttataaaa gaccttagag 13834

agctcccttg cccttctgtc acgtgaggac gcagcgagaa ggcactgttt gtgagtcagg 1389

aagttggacc tcagtggaca ccaaatctgc tgtgccttga tcttggactt ccagcctcca 13954

gaattgtgag gaataaatgc ttgttgttta taagccaccc ggtctatgat attttgttat 14014

agcagcctga acagactaag ccactcccag tgatgagcct gcatgatgtt ttacacaaac 14074

agatcactga aagaaggaat tggccagcaa agatgatgct cagcagagat gtgaaagatg 14134

ttaatgctgg aagtgaaatt taaattggag gtaaatggag tcatagaaga aatccatgat 14194

cttgggaagc tgaagctacc cttcaagaag ctcttatatg cagccagagg agttgagtga 14254

aggtgaacac actgatgtaa accaggaaag gagttgtgcc ccaaagcatg gagatgtccc 14314

agaggaagcg aggctgggaa aaacgttaaa ggaactcttg aagatatttc acagtgttga 14374

aagtgcaaag gataaaatct tggaagctgg tctggagaaa gataattctg caaagcatag 14434

aaagggtgct tttttggtat cgtaaggtat acaataacag tagcgagcac tgtgcaaact 14494

ctctccatat gtcttttaca aagaaataaa gcanttgaca tctcaatgtt tctaatgctt 14554

taaattacat tgtaccaaat aaatattagt tgtactattt taaaaaaact ttcccggttg 14614

ggcattgtgg ctcacacctg taatccaagc actttgggag gctgaggtgg gaggatcgct 14674

tgagcccagg agttcgagac cagcctgggc aatatagtga gaccctgtct cttcaaaaaa 14734

taaaaaaaaa ttagccaagg atggtggcat gtacctgcag tcccagctac tcaggaggct 14794

gaggctggag gatcacttga acccaggagg ttgaggctgc agtgagctat gattgcacca 14854

ctgtactcca gcctgggtga cagagccaga ccctgtctca aaaagaaaaa aaaattccct 14914

gtgcattccc tatggacatt tgtaactgtc cataaaagac tttttaatgt cttgacaaaa 14974

aattttaaag gccacagaag aattgtaatt tcctcattga ttattaggat ggctttaaat 15034

ggttttagct ttcatgctct attttttttt tttttttttt gagatggagt ctcgctctgt 15094

cgcccaggtc ggggtacagt ggtgtcatgt cagctcactg caacttctgt ctcctggttc 15154

aagcaattct cctgcctcag cctcctgagt agctgggatt acaggtgcct gccacggcat 15214

ctggctaatt tttgtatttt tagtagagac ggaatttcaa ccatgttggt caagctgatc 15274

ttgaactcct gacctcaggt gatctgcccg ccttagcctc ccaaagtgct ggaattatag 15334

gngcaagcca ccgcacctgg ctcatgctca tttttatgga tccacaccac ccgtacagca 1539.

aggactgcct gcactcattc caagtggtca gagtggtcac cgcatgggcc ctccacgtgg 15454

ccnggccaca gtgatgtttc aaaccctggc tgggggattg cattcaatat ccccttatta 15514

aaggcggcag ctcaagaata ttaaatcatg ggaattcctc actgtggaag tgggaaggca 15574

gcccgtggtt caccgtgagg ggcacccaga gctcccctc cactgcgttc agtgtgcagc 15634

cctccagcca gcctgtctgc ttcgggagca atccatcatg gaatgaactg accgaaggag 15694

cgaggggctg aatgatgtgg ttcctacgcc gactttcaat gtgaaaggtg ataaaaacag 15754

ccctgaatat tttatggccc caaggagagg taaggctctt tattgaagct gtgaaaatat 15814

aatccatcat gataatgtgt cccatatcgt cagactctgc gagctaagtt gtgtgtatgt 15874

taaggtgctc tttttgagaa gatcttaatt ttatttctct attttatttc attacagaaa 15934

cgtttgaacg tgtagacagt agaataaagg gggggggga aataacatcc ttcatttcac 15994

tactccagaa acactgctca cattttgttg catttccttc taactacccc ctgcagattg 16054

tactatgttt tgtgtctttt aaaatattaa atgcactgtc aacattttcc cagatcatcc 16114

tgcactctga gttaacaatt tttattggct gcataatact tcacgatgta ggtattatta 16174

ttcattcaat aactatttat ggattcattg atccgattag tgttgattgt ctataacagg 16234

tgtgtgggtg gggtaggggg attcaggaag aaggaatagg gcgcagctcc cccnccccag 16294

gatttctgga annagggaga cntaacagat ggctgtgatc cggtgtgagg ggcagggatg 16354

cagtgggccc ggttgcagcc tgggagcagg tggtcagaga tgnaaggctg tgggcagcag 16414

tggttggtgg tccacagcag taggcagcag ggggagggg cgacattcat ggcaggaggg 16474

acattatggg cacagcacgg cgtggtgtgt tcagggttgg tggagcgttc acttacagtc 16534

ttgcagatcc tggcaggtgt ggtggtgatc tgtccaggca ggggagggag agggaactga 16594

gagtcatcaa aagtctctgg gagtttggaa aggagagtag ggggctcaga gggagtgtga 16654

gcacttccag cagaggtgag aaagccccca gtcagttgcc cagggtgggc agtggaaggg 16714

aagtggaggt gaacgttgtg gggtggagag ggttttcagg caggctggga gctgcccagt 16774

gtgctggagg aaggctgggt ctccttgaat ggtgtttggt caatgcaaga ccacaggagt 16834

gtgactagaa ggctgggggt gcagatggtg gcaggtggag gatggagaga gctgctccca 16

ctgctgaaca acgactgccc caactttatg ggatgagcat tcttatgaat gcccattgtc 16954

ctgtattcca gattattctt gtgtctgtcc aggtagggat gcaatttctt gatgtaaggc 17014

tataggtgtt tttaagggct tgcataaaga tttgaatatg atgttgtcta gtagagtaaa 17074

aatcaaattg ggcaaaacat ttttgtttgg gtgatttttg gaagagtaag tccacgaatg 17134

caacgcagct ctggagtcat ctgtagatta cagcaagccc atcagtctct atgtctcttg 17194

cttacaacaa aggattgatt tcagctccag cactaggtga cttgtgctgt gttcattatc 17254

tcttgatagg tgtctgacag gagatggggc ttgggctgtg ccagggagga gccgtgtggt 17314

gcaccaccta tctccgcagg cataactatt ttgtcttcat ggcaaaataa tagcgatgat 17374

ggtgatgagg agggaagcta ccatttcttg actgctcctg tgtaatgaca tgttggtgat 17434

cacattaggg ctttatgtcc actctgggag gtggtgagaa tgacatcgcg tttgcacatc 17494

aggacgctga gcctcagaga ggttgagtcc caggacgaag gccacacagt gagtgccaca 17554

ggtaccatta ccacctaaca aatgactctg gagctcagtg atgtgatgag aaccatttta 17614

ttctgtctcc tggattctgt gagtcaggaa tttgggcaga gcttggctgg gcaaaccttc 17674

tgctctaaat ggccacccat gagtcttcca agctggtggg tggactgatc tggagggact 17734

gagatggtct cactcacaca ttttctgcgg ggtggggaga gttggaaggc ggggctcccc 17794

tccccagcgt gcagtctcag ggcagttgga ctcctttgat ggcagctggc tttcccgaat 17854

caagtatccc cagatacccca ggtggaagct gcttggccct tcctgacccc tgggacatct 17914

cagtgtcaat tgtgtcatct tcatttagtt caagcaagtc acaggccggc ccaggttgaa 17974

gggcagttgg actcaacctt tgcatgtggg aagggccagg ttacatggta gaaaagcaga 18034

tgggatagga gaccgtgctc tggccctccc tgggaaacac ggtgtgccac agacgccctg 18094

ggcagagcca agacccccac tgggctctgt ctgaccttgg agccactgcc ccgctcctga 18154

gcaacaccct cttgtccccc tgaacagtca caggaagaac gggtccctct ctccatgcca 18214

ttttcctgtt aaaaaatgca aaaacatccc atactttgc tcatttaaac acagaggaaa 18274

ggaggtgagt gaaagctttc tttaggggta gattagatgt gaggcagacc ggtggccctg 18334

ggtgtgcacc gggtggaaat tattcttaca aacagggccg ggtggggggtg cagcctgcca 183?

ccgcccctct ggccgtctgc ctccacagga ggcttgcagg tgcccacatc agccaacgtg 18454

gccctcggtg gggctgtgct tgccttcttg ccagggccac tgcagtaggg aggagtgcag 18514

agcagaaaca ggtgagctgg gctgaatttt ctgcttggct aattcagtgt ggcttgactc 18574

caagaaggac acaccgacct ccccatcatc ttgtttgttc agccttgcag aagcagtttt 18634

atgagaaacc attacagccc cggtggtctg ggcccagacc cggtgcacac cacgtgcccg 18694

cactggtgcg gggggaccat tctcggtgaa tatgatggat gcacaggaag ccgccctgcc 18754

attcagtgag agctcaccat gtgtctgccc ctggggtggg gtggggtggg cagtttccag 18814

cctttgccca tgggatagag ctgctggaag tctccccgag ctgaggaggc agagctgggg 18874

tggctggggc tgggggttgc catggatact tcctgcaagt cctgacgccg ctccttcctc 18934

tttggggatc tgtctcccat actgtccctg ctgcctttac atcttcaggg tggagaggga 18994

ctctggccat cctggggcca accatcctgt gtcactgctg gtgtttgtga cctgcggtgg 19054

gccctccctc aactccgtat ctccagctct aagccagaga caagaatatc ctctgtgggg 19114

gggtcccttc aagggtggat ggagatgagg cgttaggtgt atccgatgct caggaacggc 19174

cccgcacctg ctcatcttta tgatgagcag tgggactgcg ggcagaggga gccacacgca 19234

tccatcctgg ctctcagcat cccagggaaa gatgttctgc tctatcctga tcagcctcgc 19294

cctttaacca accacaggct gcctgcagtg tggccgtggg gagctggagt caggcatggt 19354

ggcagccctt ctagacagta ggcagtaggt aagcctgctg atcacggagc cgagattctc 19414

tgtgggacag agctggtccc cagcatccct gtggcctttg ggccaagaac tcagtcggct 19474

actttgcttc caggcttggg aacactcagg gtaggctggg agtccctgg tctcaccctg 19534

tgagccccac ataagcctgt ggatagcacc agctcagcag gtgaccccct catcaaaacc 19594

ccaaactggg atgcttctct ggctacatag gcatggccac atggggacag tgggaggaca 19654

tgtgataatt tggggcagcg gctgaaagcc tagggggttag ggctactgtg tccttctaag 19714

gtggtgcagg gcgcacagcc ctctgggcct cagtttcctc ttctgtgaaa tggggactct 19774

atcttggggc cgcaaatgcc agtgtcttct ctggaagaaa gggcgactgc tgagggaagc 19834

agcacacagg tgtgagggtc caggccccag acgggatccc acaaagacct aggacagtga 1!

gccaagagtg gagagagggg acgagggtgg actggggtgg gccccaggag ctggaaagtg 19954

aggaaaatcc agctgtgtcc tgagggttag actccactgc cagtgttcac aggatctgga 20014

gctgatgggg acctgcggtg tcaccctgaa gggacagatg gcccccaggc tagcaggagg 20074

tggcagtgtc cgtttggcag caacatttga caagcagaag gcagttggtc cctcctgctt 20134

cctgtccagg ctcttggggc tgggacccca ctcccagccc tgtcctcccc aacctcccca 20194

cacttacaca ggccactctg gggcagagga ggggtgctgt gatttgtggg tttgggagaa 20254

gttggaagca taatgggtca ggcctgcagc tcggtccaca ctgcctgtgc caggtggagc 20314

aggtgagggc atccctggct ctggggtggt gtcactgttc acactttgtc ctatagccag 20374

gcccttcttg ggggtgaggg ttccgtggag ccctccatct gcctggctct gccgatccaa 20434

ctctttctc tctcttgggg gtttcaaact tagacaggaa taggggtgtc atttattggg 20494

ccccagacaa cctgaccagg tccctcagag cactgaggcc gggaggagga gggtggaagg 20554

agatgggaag agtttccttt gtcctctctc cctggccatc cccaaacctc cacacaaacc 20614

tggggtggct gagcattcat tatgctttgt ctttgtaaat aggcagctat aaaaacctat 20674

cagcttgcag caccttctcc ataacacagg ctggatggat ttataaccca ggtcccctcc 20734

ccgagagaag ctggcaaagc agaccccagc ccgcgctggc tgccatcacc ctccctgccc 20794

ctgccccacc tcatgcaaga aacagaaggg aaagcacatt gagttgtaat atgttttcga 20854

tggaatttgt cacaataaga aactggattt tgttggggct catgggatgt ttaggaaaga 20914

gccagagagt ggtgcaagct gtgggccctg ccgagaagcc tgggctacag gagggcaggg 20974

gctggagtgt tggcagggtc gcacagtggc tcatctggac agtccacagc ggatccagcc 21034

cacactgtgt caggcacttt gctgggactg ggggatgtgg ctgtgggtac gattgacaag 21094

gtctgtgtcc tgaggagccc gcagagcaga tgagatggac atgtggtcag tgatggtacc 21154

gtgtcgggtg gaagagacaa taggctgagc tgcccagagc atcgcctgac cagcttgggt 21214

ggtggcacgt ccaggagggc ttcctggaag aagtgaattt attcaacaca tgttcactag 21274

agccagtgat gcttaggcac tgagagtgtt gccagggata caggagagaa tgggagagtc 21334

cctgagtcat tccagactgt gggggctgaag tgtccgccga tggaggtgtg ggaagggcac 213

agcggcttcc cacgtgagca aggagctatg caatgtggca ggtggcaggg ccaggcggag 21454

gtgcctccac ctgtctccag accccacccc ctacccaggt atggaattgt tgtctccagt 21514

tggcagagaa ggaaactgaa atgggggttt cacctctcag gaatgggtag gccaggattt 21574

taacccaggc ctgcagacac caaatctatc cctcgctcag gcctgcactg acctccgtgc 21634

acctctgggg ctccaggcag ctgcctgggt gggtgctgtg tctggggtct ctcctggcgt 21694

tccttaggcc cctcccctat caccgtcctt cattattcac ttggatgcct tgatggtcgg 21754

ggctggaacc ccccgagctg acccaccatg cggctcatct tccttctcct tccagtgctt 21814

ggtgatcttg agagtgaggc tgaaccgttg cttgattttt ctgtgaccca gatgaagagc 21874

tgggtaacca tttgctcaat aaagtgagag accccatgtt ctggttaaag tggaggcact 21934

gaggaccagc gaggggaagg cagtacttgt atttgtcagc ctggaggaga cgccagatac 21994

cagccagagc accccagcct gtatctcgac caccacctgc agttggtgct gaaccccca 22054

ctccacccca tagatgagac aattgaagcc cagagaggcc aggcttcttg ccgagggctg 22114

cacagccggc agggatgctg gaattgggat ttggccccag ccttgtctga ctccaaagcc 22174

aatgctattt ccaccatacc cagtgtctcc cagagctaat tttgcggctg gaactgcaac 22234

ccgcaaagct atctaggaca ggcaactcga tgaaagagaa ttaggaggga atcctagaaa 22294

aatggggctc ggcagctccc ggggaagcct ggagaggagg tggcgccgaa gcctctgcca 22354

gcagattggg gtggggctgt tttcagtcct ctctggcgag gtgttttgaa gcctcctctg 22414

ggaaccgtgt gcctctgtcc aggactggct gtctctctgg aaatcatacc ctggcagcat 22474

ttggctttgg gtgaaaggag aagagaagat tctggccatt cagagcaggc ccttgtgcgg 22534

gatggaaccc attttccaga actcttggga cagggaccag ggtggcaggc aggggcccgt 22594

ggactgcctg ggggacctgg tgcttgggga cttagagatt tgttttcctg ctgaatatat 22654

tgctttctcg tgcctgcttt gtgcaaccac gtgaggatgt gggggtgagg atggccgaca 22714

ggacacggga gtccctcccg acaggggcca ggcggcggcg ggggtccgca tgtctcacgt 22774

cagcatggct ctgtgttttc actcctctcc agcacatatt tagtggaaat gaactcattt 22834

tattattaaa aattaaagtc atgcattcat agggtaaaca agattgagag catgtggagg 22894

tgcactgtga aagtgcagtt ctctcggaat gggcacttag agacgcgcct gttctctgca 22954

gctgccgcag gggtctcatc ttgttgggac agaacacggt tgattcatgc aattggctgt 23014

tgatcaacat caggttgtgt ctagtttgt ttttttcccg tttcgcacgg tgctgcgaat 23074

tcacagctgt gccagtgtat ctgaaggtaa atcccacgag tgggccttgg agagtcagag 23134

gatggggcct tctacgtgga cttggtgtgg ttgggtgtgt gatgcctgca tggggctatg 23194

tgtttttagc ccttccttct gacaggttct ggaggcctcc tctgtgcctg ccagccatgc 23254

agccgctgag ccgagcatca cccaaggctt gcctgaacct ggcctgggtc ccaaaggaac 23314

actgctctgg ggcatggagg ttggctggtt gagaactaaa gccacatcag caggggcact 23374

gcccccacct gctggggtca gcccccgccc ggagttcagc aggacctccg tgagccttcg 23434

tgcaggtggc tcattgcagc acgtcccctt ggggtggtgg ccattggctt gtggttcctt 23494

tgctcactgc ggggaggagg acagccaggc acaggtgaaa ggggcttgcg ggtgacgatt 23554

ctagtccttg gcccggggaa tgtccctggg cttctgaggc ctcacctccc tgggtagtca 23614

ggagggttac gagggtgggg cctggccctg gggactccag ggtgtggcag cggtgggagt 23674

gaggaaacag ccctgagacg gagggagaga agggcgatcc agatggcggt ggcctcctca 23734

cccctcggcc agtgatgcat ggtagtggtt ttgacgggct gacctcgagg gtctgcctgg 23794

gagccgcttg gaactctctg gaggtggggc cggccctggt ggggcagga aggtcccaga 23854

gcagcttgtt aagtgggctg aggacaagtg tcaggagacc tgggtctgga tcccgctcca 23914

atacccctct ccgtgtgacc tccaagggat ccacctgcct tggcctctca aagtgctggg 23974

attacaggtg tgagccactg tgcccagcct gtgcccagtg tacccatcag taaagcaggg 24034

atcaaacagt tcttaaatcc tgcagcggtg gtgagagcca cctgaggaaa cgatgcaaag 24094

ggctttgacg gagtctggca cagagaacgc acccaataaa tgactgccgt gacgatcttt 24154

cttctcgccc tcaggtggtc tctggaagct cctctgtgcg gggtttctc atttgccagc 24214

tgtgcatccc ccggtcgtag tgcggctccc acggggtgt accaggagcc tctgctcctc 24274

ctatgcttcc tgaaaaaggg cccagagaat atttccatca ggaataactg agtgaatccc 24334

agaaacttcc tatcacattt agggtgatta ggcagatgca tacgattctc actgtgggaa 24394

aggagctggc gacctcgatg ggttgtggtt cccgcaggga tgtgcttgcg ctgctgttac 24454

tccagccgta gctgaggcac gggagaaaac ggagacccca agaagttcag aggcttgtgc 24514

aggtcacgct gttcctacga ggtagaccct gactttgacc ccaggctgtg tccctgccaa 24574

gcttggagcc tctttctcaa aagggcgacg gaaggatgtt gttacagatg tggttgccag 24634

tttcctcctt ttcattaaat caccagggaa atggtctctt gcaacccccc taaagcaggg 24694

ggaaggagga ggacaaaggt caggtcacca tctttgctgg catgtgagtg gggtgggggt 24754

gggggtgggg agctaggaga cctggcgctg ggcccttgaa atatccacat ttccacaaca 24814

ttctgggtgt cagtgagccc ctgccttcct ccctcacatt tatccggagc tcttcctccg 24874

cagggaagaa caacagcccg agatgggggtt atttcaaggg gatttccatg gaaacgggag 24934

ggtgggaggt tcctcccagc acttgtataa tgggagttgg ctgaggtggc agcgtgtccc 24994

cacggaaggg tgcgagggac cttctctgca ccgcaggcct cctcagagtg ggaggcaccg 25054

acccgagagt ggctggctcc cctttcatgc tcccaccctc tctacccagc tcaagacccc 25114

ggggctcctt ggtgtgagtg agagccaggc cagctcccca gggacccccca aggcctggtc 25174

cttcccatgg tctcttttct ctagcaggtc tttgtcttgg gctgctgcca gccacagctt 25234

cctggcagga cctcctggca ggacctctgt gctttgagcc gctgttgctc tgccaagacc 25294

ttgccccgca ccgtggtctg aatcagccca gcacccttc gcctctgttg cagtgctcac 25354

atttatccct cactcctcca tccagcatgt tttgttttt ttttttttac aagcagacac 25414

tttgctttat aaaagaattc tgctgtgagc tgccgtatcc tctctgagcc tcccttttgt 25474

catctgctga atggtaacag cagcgcctgc catgcctgct tggtgaggat tccatcaagc 25534

agggagacag tgggccgttg gcggggagtc tgagcaggtg taccagtatt tccagtcagc 25594

tgatggctga tggacatgtt cttggaggca gggaactcgg aggcctgcag acgtgcccca 25654

ggatgacaag attcatcagt tcctacaagc cctgcctggg cctcatgctt ttcagtgtgt 25714

cctgggcttt cccgtgtgaa atcttacctg attttatgc caccttgaga agagtgatat 25774

tcatctccgt tgtacagatg aggaaactga ggctcaggga ggcaacgtga tctttgcaag 25834

gatccgtctg ttcccccccgt ggcctggctg cccctcctgg cagtgcaggt ggagttaaaa 2589

ccatacagga gttaaaatga gcctcgatgg gggtgggaag ctacgactgg aaaacgtccg 25954

atgctctccc aagtcaaatt gtgcttggtg tctgtgggtg tgtcggtgtg ggggagggaa 26014

gctcagccct tttgaaaagt gggggggtggt ttgacgacgc tgcaggggca gctccgagtt 26074

ctagagtctc agaacgtggt tctaggcggt tcatgtggat caagtgctgt tctgagcact 26134

ttaatatcca gcgtgaccat aaggataagt gccactgtta ctggcttttt cacagatgag 26194

gaaactgagg cacagaggga ttaggtaaag tgactggagt cactcagcca ggatgtgaat 26254

cacagcccac acccatgtgc accaggaagc cttggctttc agggtccttg gagggtgtgc 26314

cgggcagtcg cctaagctgg gaaaccttgg gcttgtctcc aggccatgtg gccatgtgag 26374

ataggagtcc tcctgtgtta tgttctgcga cactgtgggc agagggctga ggaccccagc 26434

cctcccttag aacatcatgt tggtgtgaga catttagagc caggcctccc tgcttagaaa 26494

gcacctcttg ggtcgcttgc attagtgaag ttatacattt gaaactccat ttatttattt 26554

atttatttag agacagggtc tctccttgtc acccagacta gagtaccgtg gtgccatcat 26614

agctcactgc agcctcaaac tcctagactc aagtgatccc cctgccgggg cctcccagag 26674

tgctggcatt acaggcatgg gccacagcac ctggctgaaa ctccctttc atgaaaagaa 26734

acagcttcaa ctttgcaatc tcatctgtct gtctatgagg ctgtgccttt gtgtgagatg 26794

agagcagtca ctgtcacttg ctctttgaat atttgattaa caggtaaaca gcctgaaatc 26854

catttgacat cttatccttt tgcaaacttg gctaaattct cttaaattgg ttccagttgg 26914

attaattaaa tgcatggttg cttatacatg tgtgtggaaa tgattctggc aggtcatgtc 26974

ttagctagat agtgaacata agcgtctaga atattctcag ctgttgcaga gactgccagg 27034

aatgaccttg aaaaagtttg ggagagggtt tttttttttg tttttatttt gcttttgttg 27094

agacagggtc tcactctgtc acctaggctg gagtgcagtg atgtgatctc agctcactgt 27154

aacctctgcc tcccaggctc aagcggtcct cctgcctcag cctcccgagt agctgggact 27214

acaggcaggc accaacatac ccggctaatt tttgtatttt tttttgtag agttggggtc 27274

tcaccatgtt gcccagactg atctggaacc cctaggctga agggatccac ctgccttggc 27334

ctctcaaagt gctgggatta taggcgtgag ccactgtgcc caggctggag aggttttttgg 27394

atgcactggg ccatggatgt gaaggtgaac acatggaaac gatccctgcc acctgcttgt 27454

gtgtccagtg gacatgtctc tgatctatcc agattgttac actgtcaaag tgaaaactgc 27514

tgagagtaga gccatctgcc tggccaggca tcgcttggaa gcgtgaagac actttgcctt 27574

tttgtctcat gattctctct ccatgtgcag cttcgttggc ttaaaagaaa ttaagaaact 27634

gggccccgc ttaggacctg ctgaagtgca gagttactgt ctttgaagtg gtggggtagg 27694

gaaaaatagg aaataagggg tctgatcatt ttgagaaacc tcagggagat ttacacctgg 27754

gctgtgcgag gaccccggag agtggcagag tgtatttgga atttccagta gtcctcattc 27814

ctcccttaat atccagggga tctggggcct cagtcttctt atctgttaaa tgggacaagt 27874

aacgactagg ctttgggggtt gtcaggaaga ctgaataaga aaatgggtat gaaaacagtg 27934

gtcacggtgc ctggccctcc atccctgtct ccaccaggcc tacctgtctg gcccaggcct 27994

ccctgatctc cgcgggagca gacctcctgt aatggtgtca aaggaccctt gttctattta 28054

tccatctgat ttccattttc ggggccactg cctctagcca tgttaggcac atggtgagtg 28114

tctgtcccat caatccttgt cgattctgtg gtcctgggtg ggccatagcg tttctaacct 28174

gtccactctc tcctaatcag gcatttggac ctgtttgggt tcccaaactc tgtcacgggc 28234

agagggctgc aggaggctac tcacgggcca gggttgtttg gacctggttg ggtttccaag 28294

ctctctcgca gtcaggggggc tgcaagaggc tacacatggg ccagggttgg gctgctgggc 28354

tgctgggctg ctgctgtgtt ggagctgcct agcacttgct tcgttgctgc acctgagagg 28414

ctgtgtgggc tgagacagcc agaaaagatg caccgggagc catctgtttg cagcccttgg 28474

accagatgct ctgcaaggac tccgggggggg cggtggggtg gggagggaat acatttgctg 28534

agcacccagc atctttcaga gcctcagcac agccctacaa gctgggcatt gccatcatgt 28594

ttatacggac caggaacacg aggctcagag tgactgagtc actggtgaca gtcacccagc 28654

caggaagtgg cataggtggg gcttgaaccc agggcttcct gagtcccagg ctagtgttct 28714

ttgcctcagg ctgctgaggt tccagctgaa tgttgcggca gagtgacttc tgagaagtac 28774

cacggaaggg ggtgactcac gccggggtgg tctggcttct ctgcccagtg cctgaggaca 28834

cccaggtccc tctgcggcct tggggcttta cccagcgtct gcatggcatc ccgcagcacc 2889

ctgcctctgg agcgcaccct gtgtgtatcc taaagtgcgc tttgcctaga aaacctttct 28954

aatgaaactg gtggaagatg gagaagccaa attcagtttt cagagatgac actaatccta 29014

ttaaggttga tggggccaga gcatgtgtgg aattagtcct gccaggcggc ggccgggcac 29074

ctgcctggaa ggctggaggg gatcctaaca agagtggtgc cgaggagaga gagggaaggg 29134

gcctcatctc tcccagaggt ttaaaaaaac tgaggccact gtagagcttg gttctcccag 29194

gttcctgggg tggaaaacag ggcttcccac agcagacgga aatgggaggt gggcagtagt 29254

caccgagcag ggaggctgtg aagtagtcat ttaggtcggg aaagtcacgc aagatctcca 29314

agcttcagtc tccttagctg tgatgggggg aatgggtgcc ccccttgggc gacttgtggg 29374

acccagaact catcacgcag agcgtcccac tgctgtgcag ccactagctg ctcggtgctg 29434

gggctgtggt atgagcatgg actctggagt cagaattcct gccttcaaag ccccactcct 29494

caccttgcta gctgtgtggc ctggggtgag ttgcgtaacc tctccatgcc tcagttcctt 29554

catctatgaa atggggagac tgaaactgta ccccacaccc tagggggtgtt ggaacttaag 29614

tgagttaatt catataaaac acggagtgag tgcctggtac gcaggaagtg ctcagttcct 29674

cttggtgcct gtgattattc ccataatcat cactggtgtc accttgtcgc ctctcccagc 29734

ccttggggcc atgctatttg tggtaggaaa tggggcctga aaccatcaaa ctaaactgga 29794

ctgaatgatc agtccaccga ccaccacagt cacggcttgg tggccccacg gactgaagca 29854

cgtggccaag ggcagttttc ccttctctgt gtgggttcca ctgggtccaa gtacattgtt 29914

cctaagccca ggcctctggc cactcaccca cctcctgctg agagcgggca gagctgatgc 29974

ccctctctgg gcagaatcag cccacggctg·ggaggggagg ccaggcctgc tgctgggggt 30034

gcagatagtg gggagctgca ggccagccac tggaaacctg gcctgtgtgc tgagacagca 30094

cattggacac agtctggtgg ccttcccata gatcaggcca cagagtcctc atcctgggtc 30154

cacccaaggc actggccatt tccagatcaa agagcaggtg gattccaggg tgagacggtc 30214

ctctctgctg gctgccttcc cccacccacg gacaccgttt ggctttgatg gggctgtgtc 30274

ctaggcttga cccaggtggt caggagcctt ccactatgca gtgggatatg ctgcaggagt 30334

agggcggaga aggaagggaa tggccggtgg tgaacagctg ccatgcccca ggcatttaat 30

tttgaccgca gtgctggggg gccataccca gtaatacaga tgaaggactg agactcaagg 30454

gtcagtgctt gctcagagac ccacagtgaa gagtggggcc atcgtgttgc atgtgtgtgg 30514

ctgggcccca tccctcctt tctacagcac cacccctcta ttccttatca agttcacctt 30574

taaggctcct ttgcccctca ctggggcagt catgagggga gcagaggcct cggatctggg 30634

catggatgag ggtagagccc tggctgtgtc ctgcaggtga cacgtacaga gcagaaggtg 30694

atgctggaac catccgccag ggaagggctg tccaggaaga ggtcacagcc tgaacagagg 30754

cgaggtggag agagagtgct cgtgtgtggg gactggtggc agctcaggag ggcaagactg 30814

tgacttgcag gctgggaacc agggaggctg caggtgatgg aggccccatg ggtctcatgg 30874

ggcgggctga ggagcgtggc tcctcccctg cagctggagg ggccaggaag ggctttaagc 30934

catggagtga gggaccagag ttgggtttac aagggtcact gtggtgtcgg tgtggagggg 30994

cttgaaggga ggagtttgga gggagggggct gtagcaatgt tgagattccc taatcacttt 31054

agtgtttca tgcatgaggg ccccgaggtg ctttttttcca gagcctgcac tgaggttccc 31114

tgttggcggc ttccctcagg ctgctggaac cccctttttcc tgtgcacctg cagagctgga 31174

ggttactgga aactcatgtc ctctgccaga gtcagccctc acccagtcac tgacaggtgc 31234

agtggtataa ataccccagc tccctccctc ctgatcagga cactttgaga tgggacctac 31294

actgtcccca gagctcccat gggactgagc tcaagtcgca ctccttgaga ttttttcctgt 31354

tatcacaccc cacttggcct ccttcatgtc ctggccccac ttccctacac ccttcctggc 31414

tttcccagca acacttccta atcacttcca gaaaaatgtt ggcctcaggg tctgcttctg 31474

gagaacccag cctagcagag ggcagcaaag gtgttgaggc actaggagaa acatggtgag 31534

atacagactc aggcggcgtc catcagctat gccaggaggc tctgagacgt gccagtcagg 31594

gagggaggtg ctgaggccac agcaaactgg gggccagaag taagcaccac agacagcacc 31654

aaggctgcca gggtccatca tcttgggtct cccaattggt tgggtccaga gaccagcctg 31714

ctggggttta cagagccagc atgttacatc tctctgtgtc cccactgctg aaagcctctg 31774

gtcagtgcca tggtgctgag ggagcttggg cctcccttag aggttgctaa gagcccccca 31834

cacctgccct gtgagttgtt ggccccaggg gactctgagt ttccctgttt ctggtttttcc 31894

tgctcatggg attgggagtc tgacctgagc ttgctgagac agataactga tcattcagat 31954

acaaaactct aaaggttaga actcttttct gataacttaa atagaaaatg aattcatgca 32014

acatgtactc atctgtccat ctgcgcatgc atccaacatg tatgtatctc agttgatggt 32074

tgtttccatg ccaggccttg gggatctaga gatggcttgg tccctatggt catacccatg 32134

tgaagggaga tagaggtgga cagaaagaca accataatgt cattttgaca aattctggga 32194

aaagatgggc cacccagcct gtgagacctg tatgtagtga tggagggatg gggaacggtg 32254

gaggtgtcag ggaagctccc caggggagct gttccttgag gtggttttaa gagcttagca 32314

agagttttct acgcagtgaa gtgaagacgt agggcaggtg gagtggaggg ttggcaccta 32374

aaggtcctga aaaggaatgg tgttgcaaga ggcagcaaat agcatggggt gggctaagct 32434

ccagctggtt gagtttgggt cagaagtgtg gacttggttg gtaaggactc ctgagagtgt 32494

catgtccagg cacttggact tgatgctgaa aatacagcca ttcaacagag aagtatgtat 32554

gtctgagtgt gatgtggtta gatctttagt ttaggaagat ctctctgttc atggtgggga 32614

gagtggatga gatggggggtg gactggaggc agaagagcag aggagaagag cagactttct 32674

aggagacgaa gcgggagggg ctgctcccag ggcctggctg tgagtggtac tgaccagagc 32734

catccatcag cccagatcat gtctccctaa tttagaagaa aatgagagga aagagccttt 32794

tcatctctgc ctcttctggg atggaaatga gctattttga atcacgctaa agttagattt 32854

ctagttttcc ttttaatccg tgtctcattt agagcattag aaactggaaa agcacccccg 32914

tatgaatgta gtgtcataaa tcagtgcacg tcacaaactg cagaaggagt catttctaca 32974

agagtgtgca gccttgcatt tatgataaat ctaatgcttt atcttttgg gcttcagact 33034

agagtaatta gtcatttctg ctgatactgg caaaccattg catgtgcagt gttaatggag 33094

agcaaatgta tttgaactgc ttttgcaatt gcttgtgagc attgctgtgt atctcttcta 33154

cctgtttcta gaggggaaac atcctatata tttcattctt gcctattcta ggaataggtg 33214

tggtaatagt atcaggtaac acttactggg tttcttccac atctctggca ctgttcagag 33274

attcaataag aaaggatcct ttgtccaaat ggaagctgcc gtgtgtgtgt tgaggtcctt 33334

gggtcaatct gatcatgctc tgtctcctgc tctgtgcccg cactgtgtca gggaccacct 33394

ggataccact catgtattat tcacctaata ggtttctttta aatgttggcc ctctaccata 33454

aatggaaaac cagcaaatca ggccaaaaat agaagtaacc aaagacaagc acaggtgttt 33514

ctgctctaat gaaatagaga catcctgaga aacttctcat tctgcaaaat cccaaacaaa 33574

tgacatcaga gctgatggac agaatggggt tgggacagat gactggaagt ctatgcagtg 33634

tgtcaccaga cacccataaa aatattaagt tttagaaaaa tctggcacaa tgaaagaaaa 33694

acatattaat tcctgttaaa gaaacattcc aaccattata caatcttatc ttgaaggaaa 33754

aagtgaaggt catttaatgg aaggggctga aagggaggga gctgaattat ggctgggaca 33814

tggcctgggt acagagggag acccgtccac caaactcttc caaactgagc taagaggtag 33874

gtgcgcaggg aatgagtcta ttctcttggg ccacattcct ttgaggcttg atgttcagcc 33934

attagtgtat tttgcattca gttgcttcct ctggctggca caaaacatta acacactgag 33994

aaaggctgcg tttgaaccaa cctaactttt acattatact gacatcattc ccctatgtac 34054

aaattgcata cgacctactt tgcaaaggca atggtcatag taactgtacg atggtgagtg 34114

gggttgttaa atgcagacca gatactgctg taatagggct gtgactcagg actatcattc 34174

cagttgcctg atatgaaaaa ggacatgaag gagaaggttt tatgagaact ctggcaaaga 34234

cccatgaaac cactcttctt tgccctccag aaaacctggt aaaactgaaa gtaagccagc 34294

agccccacgg gtttgggatt gatccagaag actgaaggaa taaaaacaag ctaatatatt 34354

tctatcccct cccttctaag gcctgtagtt ggttccatta tgatgagaca gcagccgatg 34414

cacgtaaaaa cagaggccat gcatctacac aggggtgttg aggattgaat gagattaggt 34474

ctgaaagaac acacagtgga gacagtgttg tcattgtggg gacaaagatt tcttttcaca 34534

atttgagtga cacttgtcat ttctataggc agttaagaga caataactgc atactgttgg 34594

ccgctgtacc tttcctgtgc actgagtccc tgagcatatt cgtgagtctt taaaagtaca 34654

ttctagtcaa tgtagaaaac agatagtaag ggacatgact ctacctagat taagctcagt 34714

tttgaagcag ggcctagagg atttagaagt gacagagtcc tggattaggt gacatttgat 34774

aagagctcta tccctaactt cctcttaatt ctggacaagc cactccccgc tctggctgta 34834

gttcccccat ctttaaaatg aaacagttga atcagacaac tacaaaagga cttgccaggc 34894

cttctgtctc agatcctgtg ttgttgaagg gatgtctgag gccagagatg cagtttactt 34954

ctgagcaatt acagttgtat ttcttgtgtt cagcctagcc ctttaccaag ctttgttgaa 35014

gaaatggagc aagatccttg tcctttgctt cggtggtttt taaaacttgg atgcctaaag 35074

aaaccaggaa ggtcatatca gtgagcaaag tacaaaatgt ataagcaaga cacagtgcac 35134

catgacgctg agagtggcaa agtaacagtc caaccatgca tcagggagtg gtggggactg 35194

tggcgtgctg gcaagcatag ccttgtggga ttctgcattg gacagctctt acaatttctg 35254

gagagaaatc agaaattcag gtctacatgt tgaatctttt aatattgaaa tgttcacttg 35314

gcaatgtgta aacatcattt gggtcaaagc ccatctgtga accaagttag tcaaagacaa 35374

cttgggcatt tggacctcag ctttatagtc tatataaggg ttggtaaact atggcccaca 35434

tgctaatctg acccacctcc tgtttttgtg aataaagttt aaatgaagat gcagtcacac 35494

ctatgtgttt aggtattgcc tgtggctact ttcacactac aacagcaggg ttgagtagtt 35554

gtgacggtag ttgagacagt gtggccctgt atttattctc tggaccttta tggaaaaagg 35614

ttgctgaccc ttggttcatg tcaatgactc atatggagca gcaggaaaca ttctgaattt 35674

ggagctgaat gaccagggtt tgacgcctgg ctcagggaac tctagtaaca gagtagagag 35734

tgtttctctt ttctcctttt ggaaatgatc ctgaagcaac aaatggaaca aatggaaatg 35794

caaatgccat ctttgatgga accatagctt ctggaacctc atatgtgggg aagtgcagta 35854

aaggtcaaaa atgggtgcag gatgtctcca aagggaaata aaatgcccat ggctgtaaag 35914

ctcagacaga gcaaacaaag cagaattttc tacaccttct gtggtgggct cagatggcaa 35974

gacctatagt tcctctcatg gagcaataag aacaagtgca ttggctggtg tcttagtctg 36034

ttcatgctgc tatagcagaa taccatagat tgggtggctt gtaagcagca tacttttatc 36094

tctcacagtt ctggaggctg ggaagtctga tacccaggtg taacagattt ggtgtctgct 36154

gaggacctgt tttcttgttc atagatggtg ccttcttgct gtgtgcttgc gtggcagaag 36214

gggctaggga gctctctgag atctctttta taagggtact aatcccattc atgagcactc 36274

caccctctaa gacctaatca gttctgaaag acgttacttc ctaagaccat cacattgggg 36334

gctaagattt ctatatatga atttcggggg gacacacatt cagaccataa caactggtgt 36394

gggagccttc ccagatctag ttttgcacaa agtgaaatca gggaagtctg gggtgaacaa 36454

ggtctcacat ggacaagcta tattttcaaa aagcagtcta ctagagaggc aaagtggaga 36514

aaaggggctg tgttatgtgc cagcctgtgg catctgatct taacaagaaa gaagtaaagg 36574

ccaaaagaac tgactctcac tcacaagcct gttttctaag aactagatta ctcttttgga 36634

cactctggtg cacgaatctt gtataaatag atggttcagg aagaactcat cacattcaga 36694

gatgagtaat aattagtaag gaccagtgca agctctatct caagatcctc caaaaatgaa 36754

gaaagtaaca gatgaaaaat atgcgcaaga aaacatttgc cataaatcag atgaaaatgt 36814

caacagtaca taatgccttg gactaaggaa aaaaataatt gagcaatcac acctctaaac 36874

aagagtataa agttgagata caagaactca ggagaggtgg taacatgaca gaagagagtg 36934

aaacctgata tgatgagctc cacaaagtag atagattaac aaataaaccc atctaaaaag 36994

tgaagtatgc aatggaatga ttatgacagg gaacacagaa aacacagtaa gagatatgga 37054

agatgagatt gggaaaagca agataaatta atgtaaagag agagagagaa atattagaac 37114

atgatacaga ggacagataa ggggatccaa catacacata attggtgtcc ctggagataa 37174

gaatgaaaat aattaaataa aaaaaattta aggcacaatt ccagaacttt ctaaaaataa 37234

gatttgaatt tatggactga aaggaagtac agtgagtggc tgagaaaata ttgatatggt 37294

gaggtcaaca gaaagacata gagaagtact aatttcctca taaatcaaga acccccaaaa 37354

aaattcaata gaagaatgga taaaggatgt gatgaggaga tggtttacat aaaaggaaat 37414

agaaatatct tttaaacaca taaaaactca acctcactca taataagaaa actccaagtt 37474

aagatactgt tttttatcta tcgtataggc aaggactaaa atagctgata ttaccatgat 37534

ggtgcaggta tgagggaaac aagaactctc agaaacatgg ctatggattt cacttctaat 37594

ccttgtctga tggaagtaca caagtaagag gccaggtgtg gtggctcatg cctgtaatcc 37654

cagcactttg ggaggccgag attggcagat cacttgaggt gaggagtttg acaccagact 37714

ggccaacatc acgaaacccc atctctacta aaactacaaa aattagccag gcgtggtggt 37774

gcatgcctgt aattttaggt acttgggagg ctgaggcacg agaatcgctt gaacccagga 37834

ggtggaagtt gcagtgagcc gagatcacgc cactgcactc tagcctgggt gacagtgtga 378<

gactctgtct caaaaaaaaa aaaaaaaaaa agaaaagaaa aaagaaatac gcaggtgaga 37954

aatgacattt atccacattt gtcatagcat tgttggtaat gggaaagaat ggaaatatct 38014

gtaatggcca tcacagggga ctgtttacat aaattattcc agagcgtgat agtggatagc 38074

aatgaaaaga atgtgacagc tcagggtgcg ctgatgtaga atgatgttta agattcttta 38134

ggtgaaatga gcaaggtgca aaatagtgga tgatccatga catgctttat gattaaaaca 38194

tggtatctta tgactgcttg tgtgtagact ccttctggta ggatgatgca cctgaaagtg 38254

ctcatagtgg ttgccactag acaggagagc tgagtgagtg ggagaagggc ctaagggaga 38314

cttattttca ctgttagctt ttttgtgccc tttgcatttt atactcattt cttaaccaaa 38374

ggctgcacag cttaggttgt gaccataagc tctagagtca gctgttcgag ttcgaaccct 38434

gactgggctg cctactcgct gtgtgacctt ggacaagtta cttcacctct gtgggtctca 38494

gagttgtcag atggatgtaa caatggtgcc tatttcataa gttgttgagg atgaactgag 38554

tcaattcaag ggaaagaatg aggacagaac ctggcacaaa aaaatacagt caaattagct 38614

attatagtga ctgcatgtat agttgaaccc agggtctgga tttggaaccc gtatgcttat 38674

tggcccaatg gggggggatga cttggccaca gaacagccac agccaggcag taaagggcac 38734

agggaggggg ccttagcctg gggcttcagg gaagctgccc aggggaagtg atgctgctgg 38794

gtcttacaga atgatgggaa aacttggcgg caccgtttca ggcgacgcta cttagatctg 38854

caaaactgtt gatgtcttac aataccaagt gtagggcggg gctggagaaa tggaaactca 38914

tgccaccact ggaaatggat atgaaagcaa accatttgca aagtcatttg ccaatatcca 38974

gatatgtcca agcagcccct ctgttcccct tctaggtaaa tagcagggaa gccttcagct 39034

gtgcacagag agccattcag caacagagca gaccctcgaa caacacgggg ttgggggagc 39094

caacccctg cacagtcaaa aacccacata caacttttga ctccccaaaa acttaactaa 39154

tagcctcctc ttgattggac ttccaaaaac atgaacagtt gataaacata cattttgtat 39214

gttatatgta ttatatactg tattctaata aagtaagcta gaggaaagaa aacatcatta 39274

agaaaatcat aaggaagagg aaatatattt tctgttcatt aagtggaagg ggatcactat 39334

aatctttatc ctcgttgtct tcatgttgag taggctgagg agaaggaaga ggacgggttg 39394

gtcttgcagt ctcaggggta gcagaggcga aagaaaatca tgtataagtg accctcacag 39454

ctcagctcat gtttgagggt caactgtgtt ctaaaatcca agaggctctg aaagcctaaa 39514

gattttttcc taacttattt ggcagtgaaa cccaacctaa attgatgtga aaccatttat 39574

agcccttctc tatccctgta gtgtgaagtt tcatatgtta tgtacagaaa tagaaatgcg 39634

tatgcgtgtt gtcccagaag cccttggggg tgacagatgt cctaggtgac ctgtgcacca 39694

tattactgta cagtccaaat cctctatcct gaaatactgg gcccaccctt tgggatttgg 39754

gagatgacag tgaagctggt gtgtgttcag ggaattccag gttgttgaag gtgctggagt 39814

agaggggaga gggggaaacg aggcagcagg cgctgggtcc cgacggtcct tggacaccta 39874

ctgaggatgt gggtacaaca cttctttcat ccctggggct cagagatgtc tgctgaatca 39934

gtcgaggggc cttcagtcca ctgtgagccc cagaaggcag agctgtggcc tcctccgact 39994

tgtttctcag aaaggtcact tgggcagcag gtgaacatgg ctcaggagag gcaagggagg 40054

gtggggacag gtaggaagca gaagccactt actgggcaaa gaccatagcc atgaggatgg 40114

ggagggactg agtagccaga gaggcgctca tcaaagccta ctgctgtcgt ctgaaggtct 40174

ggtttctccc aaattcgtat attgaaatta agccttaaga tgatgtgtta agaggtgggg 40234

cctttgggag gtggtcaggt catgaagatg gagccctcat ttatgggatc agtggctttta 40294

taaagggacc ccacagtgag aagatggcca tctatgaact atgaagaggc cctccccaga 40354

cactgaagct tctacacctc gatcttggac ttcccagcct ctagaactgt gagatgtaaa 40414

tggctgttgt tataagcccc ccgagtctgt agtattctgt gggagcagcc ccaaatgact 40474

aagtccacgg cccatcctcc acccactgag gccataccac tgggaagggt atcagaggca 40534

gggttggggt cttagaggtc cagggtctct tgtccaggct ccccagaggc aggccccgag 40594

gtgtggacta gagtataagt ggtttatcaa ggaagtgtac ccaggggagg tccagataca 40654

agtaggaggg gctcaagcac agaggagcca gggaaggggg ggctctggac cgaaaccatg 40714

tcccctccac ggctttggac ttagcccctt ggggacacag acgtggctgg ggatgggtca 40774

caaagtaacc agggtgactg ccagcctgaa ctctgggctc tccagacttc tggggaccgt 40834

agtctcagcc tgagcagctt tctccaagga gggtcctgga aacctggggc ctgcccctga 4089

ttttgtcctg ggagcagggc ccctccatgg tgttctggag cccctcatat tagcttttga 40954

ggttgattgc ttaattttca gtttggagag ccagcagaca tcttgttggt agtttgaaat 41014

tggccagggc aggggtattt ataccatgga agctggcagg ggctgccttc cagaacctct 41074

ctccctccag gtgcagggaa acacggacct gcacaccctg gtggctttca caccttcccc 41134

tcctcaggcg gctcgtcccc ttgctcagtt atactgatcc ttgggcttgc aggcagaacc 41194

atctctgtca tccagaatct ccctagtaac cccaacccca aaagtgggct gccggaagag 41254

gcagatggca gtgtcccagg gctatggaag ccactgataa acatcttcca acaaacagga 41314

tcagggatct gcaaagtttt tttttttgt tgttgttgtt ttttgagac agagtcttgc 41374

tctgtcgccc aggctggagt gcagtggtgc gatcttggct cactgcaacc tctgcctcct 41434

gggttcaagt gattctcctg cctcagcctc acaagtagct gggattacag gtgcctacca 41494

ccacaactgg ctaattttg tgtttttagt ggaggcggtg tttcaccatg ttggccaggc 41554

tggtctggaa ctcctgacct catgtgatcc acccgccttg gcccccaaa gtgctaggat 41614

tacaggtgtg agccaccgtg cccggctgga tctgcaaagc tgttgaaagg aggagtggat 41674

aggattacaa agttggcctg attctgctaa atgaacattt caacatgttt cccctcgtgc 41734

accgaggagg catgcactct cctctgaggg tctgaggctt tcttcacgga gactttgtaa 41794

accacttctc cccagcactc tggagtgggg gagtcacgta gggaagtcat ttctctcctc 41854

ttggacctct cagtcccctt tggcttctcg ctgataccag gcagtcaggt ggatcagaga 41914

agacatggac tctggagctg gatgtctggt gcaggcagtg tggcttcagg caacttgctt 41974

tgcctctctg ggcctcagct tcctcctgga aaatcatgat gctcatacct agggtttcat 42034

ggggggtcagg caggacagtg caggtgcagg tatgagcacc atcccatcaa ggacatagtc 42094

ctggctgctt tcagtgatct tggtgctggg gaaaatgggg ctgattctca tggaagagga 42154

aatggattca tgtgcccact tcttaaatgg aaattcaagg ccttgatcgt ggcccactta 42214

tgaggtgggg actagtgagg cttcaggtgg tgtcctaaga ttagaaaact ggagcattca 42274

gttgggagtc agacctctgc tgatgtgctg tgtgacgttg ggcaaggtgt gtgacttctc 42334

tgggccttgt gttcagtaga agcaggtcat ctttcaatag acctccttcc cagaccctct 42394

cggatgctgt gggcatccag ctggcccca tgccacacct ggcttctcgg ggactggcct 42454

gcattctcac acccgttctt tctggcaacg atgggcattt gtttctcccc tgccagcaaa 42514

ctcctttgga ccaagaattg atgccatggt gttagcatac aataaagctt caaggagctg 42574

gtgaaacact ctgagacggt cataaaattg gcttttcatc cctgtcggag ctttcttatt 42634

acagacaaca agcagtgtca gggagcagca cggtagatgc tgcttaaccc agcagcaggc 42694

gagactgagg gggtctcgtg ctgtttgtca ccaccgcctc tctgagatca tccccaaccc 42754

atactgttga cattcactgg gatacctggc tacctgtttt gggtttcctt acaatttttt 42814

catttgttta atagttttta tttttcaaag tcttaaaaaa cacaagtcag tgaaagtttt 42874

ggtctttgtt actgtcttcc taccaggtac gagggcctga aagtcactgt taattgatta 42934

ttgattatct gattagaacc gtacatttac tttttaagga aatgtgaaaa ataagcctag 42994

aaatgaaatc aaaagtgcgg tgttgaagtt agaaatggca gcgtcacggt caggaattaa 43054

agctgctgct tctctgtcac atggtatacc acagggggtg gtagctacag cccatgggca 43114

aaacttggcc cagtgcctgt ctttgtaaat aaagtttgat tggaacagag tcatgcccat 43174

gtatctacac attgtctgtg gatgcctttc tgctataatg gcagagttgc agagttgcca 43234

aagaggacat atgtcccacg aagcctaaaa tattggctat ctggcccttt gcagaaagaa 43294

tttgctgacc cttggtatag aggaaagtta gtggcacaag tttagatcgc ctatagtgaa 43354

agaccttgca ggaccaggag tcaggcagac ctgggttcga aacccgctct gccacttcct 43414

ggttgtgact tcaagctgct tgccttttcc tctcagggtt ctgtttctgt ctctgtcaaa 43474

tgcagccaaa tactgcccag tttgcacagc tgtttttgga gacagagaca ctcagcaagg 43534

ggtccagccc ctggtgggtg gtatcccaat gtcactgttg gcatttgcag tgtcagtgat 43594

gtctggctta ttcatcaggc cctcttgagt ttgccccaaa cgagtcaacc ctccagggct 43654

gtgaaacttc tgctgccttg atacgatgtg atttccgaac cagaaaaatg gaggaggccc 43714

tggcccctaa tgcttaagtc acaggtgact ctgtgcaatt ggtttcttcc ctgtctcctg 43774

tccctctaaa aagaaccacc tgagctcccg gactgtgcta tatccaggcc taaaggctgg 43834

tggaccagga cacagtcacc agcaatcagc tttcatcgac ttggctggac cttggaaact 4389

taaggcttgc cctgccctgg cttcttgcgg tgagcaggtc ttatggagtt gctctaacca 43954

ctgtccatcc aggccggggt tagaggatcc aaacacagcc atgttgatgg gaacctggag 44014

gcaaatagag ggcatgagac cctcctctcc tgaaaccttt ctggccttct tattggatac 44074

ccaccaaaca gtcttgatct taaaactttg tgcaaagcaa taggatgaac ttgtaggaca 44134

tgcataaaga ggaaggtatg gattgtgaca tgaggctctt agggatgctc ctcctacagt 44194

gctgagtgac cctcctcaga ggcacaggtg tgggcacagc ttgttctttc aaatcctggc 44254

accccagctg ttctgctgtc tagctcgttc cctcattgac aaaacaggaa taacagtgcc 44314

cacctccttg ggctgttagg ggatcaactg agatgctaag tcatccagga gggggagcct 44374

ctttcccaga gtcctgcctg tgcccggtgg ctgtgcagac ctgatacccg cagccatcta 44434

cctctacacc tcatgtgtgt tagagaacac cactctgatt tcagcctctc agactggggg 44494

ttcagtcact ggctgctaaa agcttcctaa agccaaggcc tctccttgcc tccaggggct 44554

ccgtgtctgt tagatgtgta aacagatcca tcaccgagca tactgatgag tcctggccta 44614

gggacaagca tggccacaaa tgaggtgtct ggaaagggct cacaggggaa ggagccactg 44674

aggagggcaa gaagaaggct tggccaggaa gatggggtag ggctcattcc tggcaggtcc 44734

agcctatgtg aagcccagag acccagtgag gggcttgccc atcctttggc cttgctggag 44794

ccaagggtgt gaaatgggag ctgagagtag gatgttagta gcagtggctt cctgggaagg 44854

gcccccacat gggagcctct ggcctggttg caaatggcag gaccaaggag gtggttgttg 44914

agttagttgg aaggcactgt cctgccagga tttcccacgt cctcgtttga gcattgagat 44974

gctgaacgtt aaactgtcct tcattctcca gctcagttct tttattcatc caacaaacac 45034

agagtagcta ctgtgtacca gatactattc taggcactgg gcatacagtg gggcccccag 45094

ctcgtcctgg cctcccagcc cagtgggtgt ggagcagtga gcaggaggac ctcgagtgtc 45154

acacttgctc cccttggtac acattggcac atggcgttgc caggtcagat attctcttct 45214

tggggttcac cagcatcccc cttggatgtg ccctccgtgg tatgtggccg cttccatctc 45274

agtctcaggc cgatggaaga tattttcaaa attaacttag cttttggaat tggttcctcc 45334

ccatgttggt gctcaaagac tccccagtga gacagctgcc tccttgagct ctgtgtgcaa 45394

aacttgggga gcaagacttg cttgagccag tgtttggcct ggcccaagct gttgggcctg 45454

cagagcctca cctgcccctg tggctcaggg cttggtgtct gaagtggatg gaggcagctg 45514

aactggtttc tccagggccc catccagcct gcgtttccca ggctgctgtc ccagctctgc 45574

tccacccaag tctactctgc cgtcccctga tactgacact gagtgtgttt ctgaacactg 45634

caggggggtga ggaataaggt gggcatattg tagcttcagg aggtgatgct tgtgtctgaa 45694

atataaggac cacaattgcc atgcaggtgt aaatatctcc agtgattaca catttccctg 45754

caccgaccga gtggctgcac ccagtctggg gctctgtctc tcctggtcag tctgttcttc 45814

ctgaagccag gaacacagga gggcaagttt ctctccatcc ctagtcccac cctggagcca 45874

gcacacagta ggctgcagga agtgctcgtg gaacaaacac aggcagcaat ggaagaatcc 45934

ccaccactgg gattttcagc agctgatcgt agaagggagc tggactgcaa ggccgtctcc 45994

gaccgcctcc ctctcactgc ccagctggct agggtgatga gtatggacga ggatggaggc 46054

aggctgtggc tgctgtctca tccaagtagc cttttcctga caccccaagg ctgggcagag 46114

ggactgagtt ggtcccaggg cggagcctgc tgggaaggaa ggctgttagc cgctgccttg 46174

caggtgccat agcaatgcca ggcagcccac ctgctccttg gattagatgg gggatcagag 46234

ccgtgaggga agcaggcctg tacccaggaa caggctcatc ccgcccctgc cctggcccgg 46294

tactgatgga cctggagcca tagagtgcct ctccccgcaa cacacatgca catgcatgca 46354

cgtgtgcatg cacacacata caccacatac acaccacaca cacacacccc acacatacac 46414

acataacaca cacaccacac acacacacac acacacacag ccaagcatcg attctgggcc 46474

ctgttctgta tgcacaccaa ttttcctgaa cagactctcc ttgtcttcta gcacccggga 46534

ggattcagaa gtgtcctggc tgccctgtgg tgatggggat ggcagggacc tgcatttttg 46594

tgagttcctg cacgtgatga aggggaaatt gcaactgccc aggcagcctg tgcaaaaagg 46654

cagtgggttt caagtgtggt cataaaccaa aagcctcagg ttcacacgtc atgggggagg 46714

ctgaggggaa cacacagcct ctgagctgtg ctctcgggct gattctgagc tcgtgctggt 46774

ggggacaccc ccagacttcc agcagcactg gatgtccctg gatcctcaca tgactcatga 46834

ggaggggctg gcatgttcct gaacttcagg tgttgactct gcagtgaggc gatttggatc 46894

agagagactg tgcaggtgcc caggacacat agcaggtgag gtgcacagcc aggcttggct 46954

agcaattggg ctcttaatga tgctcacact ggacgtgtca gagtgcctgc tcctgggcgt 47014

gcacagcctt gtgggagggg ccgacaggtg gacagggaat tatagggtgg ggggacaggg 47074

agctgtgctg gctgttgtgg ggacaccaca gggaaggccc cctgactctc atgttccagc 47134

attgccactt cctgtcatcc tctcggcaac cctatatgaa tgggaatagg agtaagtgct 47194

ctgtaaagac tcctctggct gccaggcacg tgctaagctc tttgcccaca ccactcaggc 47254

attcttcatg atggccctaa aagtagagac tcttgtgtcc ccattttaca gagtaggaaa 47314

gtgaaccta aagaggctgc ctgctgttct gcggccacgc agctgggcag tggcggcatc 47374

gggatttgaa cccagaaact ctggctgtac ggtcttagcc ttggctcact ctcacctcca 47434

agaaatagac tctgagcagt gaggtgacgt gtcccaggtc tcatgggggc tgagggatct 47494

gggaagggtg atttgccccc acccctgcat ctcccacacg gtcccatccc tgaacccttg 47554

cacacacggc ccctctgcct ccatgccctt cccctcactt tgtcaaaccc cagcagctgt 47614

tcagcaggca caccacagcc gcctctggag gaggcattgg ctggtctcct gtgtcaatgt 47674

atcgacactg cctggcgagg tctggctctc cggcctccct gtgtatccac aggtctcccc 47734

agctctgcaa tccctttagg gcaggctcag gtcagtcatg ctatggtcac ccctcagtgc 47794

cccgacatgg ctcagcagtg tccggtggct tgaatggagg accacaaact gtcctctctc 47854

tgcagagggg ccccaggtca tatctgctga cttagcaccg cctataagat ttaaagacca 47914

ctctgttttc acctggagga accgtcagct cacgcaggat ggcaggtggt tttccagggc 47974

tccacagtga ggtctccagt tcatcttttg atgagggtga tgatgggaca gtggccctga 48034

aagcacatgg ctctagagtg cttaggagcc tggtgacctg ctgctgtgac ttcctctcca 48094

gagctggagc tccaggggct gaggttcccc ttccctgggc agccccttcc tcctaatccg 48154

gctttccctg tgaggaagag cctcctggcc ttaagccaca tccttagcag cttctgccgt 48214

ggcccttcct ccagccgggg accctggcag aatgcatggg caggaggagg tgccttggcc 48274

ccaggacagc caggtgggca gtgaatggac gaaatcagtc tgtgcaggag ggaaacacta 48334

acactaaccc taaccctaac cctaacccta acacattctc aaaacatttg attctaactt 48394

aaaacacaca agggcactcc tttccatggc cctactacat gatctggcct gacctgcctt 48454

tctggcctct gctcatacca ctacctccct gatctttcag ttcctcaaac acaccaagct 48514

ggttcctacc ctctagctcc ctcccactga ctcctcctca ccctgagatc ctcctcagct 48574

tatcaaaaaa agattccccc attttctcac ttcaacccett tgttcatttc ctccaaagta 48634

ctgtattaca gttaatgatt attttttggg tctgtttacc tgtttgggct tcgcctcccc 48694

agtggtatgt aagatcttta agggcagggt gcatgtgtgt ttcttgcttt ccaaaatatc 48754

cctagtgggg gccgggtgtg gtggctaatg cctataatcc cagcactttg ggaggctgag 48814

gtgggtggat cacttgaggt caggggttcg agaccagcct ggccaatgtg gtgaaacctc 48874

gtctctacta aaaacacaaa aattagctgg gcgtggtggt gtgcacctgt agtcccagct 48934

acttgggagg ctgaggcagg agaactgctt gaatccggga ggcagaggtt gcagtgagcc 48994

gagattgcac cactgcactc cagcctgggt gacagagtga gactgtcttg aaacaaacaa 49054

acaaaaaact aaaacaagaa aaccccccaaa atatctccag tgggtagcac agagcctgac 49114

acacagtagg tctgcatgaa tatttgttga aggaatgaaa cagtgcctgg atgagtgtat 49174

tgcagcccct tccaggtagg gcacagccat cggggagcca gcgtgacaga tgtgagtgct 49234

gtggccctgg gatgcgatga caaccccttc tcactggggt gtaccctgga ttggggtggt 49294

gcatgtagaa tatatggcat gctgctggca cttggcaggt gctctgtcaa ggttagttgt 49354

tgttacttaa aaactctaat caagtaagca tgacatatac tgaggtccta ctgtgttact 49414

gttatgggct gaattgtgtc tgctccaaaa ctcacatgtt gaagtcctaa cccccagcac 49474

ctcagaatgt gactgtgttt tgagacaggg ttttcacaga ggtacctaag gttaaactgg 49534

atcattaagg tgggccctga tccaatatga ctgtgtcctt ataagaagag gagattagga 49594

cagagacaca cacagaagga caactgtgtg aagacacagg gagaagacag ccatctgcaa 49654

gccaggagag aggcttcaga agaaaccatc ctgctgacac cttgatcttg gacttccagc 49714

tccagaactg tgaggaaata gatttctttt gtttaagtgg cacagtctgg ggcactttgt 49774

tatggtggca ctagaaatga atacagttac caaatttaat ttttcaagct ctctctagca 49834

gcaaagtatt tcccccatat aaaaaaatga ggacgctgag gctcagagag gtgaactcgt 4989

ttgccggagc cacagggctt gctggcgggc gttggcactg atagttgaac cctggtccac 49954

tagtgtgcct ccagagatgg tgcaggccac gccgtctgcc ttggtctcac gcaagtggcg 50014

gctaagccca gaggcacttg tctccatttc agtgccctgc tattggctgg ttagaaagtc 50074

aatattttat ggagcctcat caacctccca agtcttgggt ctcaattccc ccttttggtg 50134

tgagcctctg aagactggtt gagcatttgt gagaaacaaa gttttgacta ctcaagactc 50194

tagttaaaaa aaaaaaaaaa ttgcaccaat gtgccatccg gctgcagcgt ctcaggggca 50254

tgattcggtt tttgcaacag ggagtagctc ttcttgaaac attatgggat ttctttccta 50314

agttgacttc acttacattc tgctcagcac atgcaaagca tttggttatc gggaggcaga 50374

gtaagatgac aaccctatta ttgaaggtaa gcagacctgg cctgttcaca aagccctttt 50434

tacatcttgt ttcattctgt taccaacagg gtaactgtga agtgggtggg caggaactgt 50494

gacttctttt caagtctcag aagatgtcag tcccccaggg aggctggcct ccgagtgcca 50554

gtgcaggtgg ctccccctcg gccgtcctat gccacgtgcc ctctcctcgt cattctcagc 50614

cccctcgcgt ctggagtcac ctcgctggtt tatcgtcttg tggtccatct gcccgtgagc 50674

attccagcca ggtctgtggg cttcgttttc acggccgcca ttttggctgc ccgcagagtg 50734

cctggtgcaa agcggatgac actcagtatc tagagcggca cttccgggta atccacaaac 50794

atttatcaaa cacttaggtg tcacttgggg tgctcggaat tgcaaacatg aggacaaacc 50854

ctcactccat ttggggcctg cagattcagc aagagtggaa aaaccagctt tttaaaatgg 50914

cagcctggga atcccagaat taggaagcac aagcttgtct ttggcaggcc aggccagctg 50974

ctgacccgca cggccttcag gggccagcca gtgcgaccat gattgaatgc acagccctga 51034

ctcctttgtg gcattggctc ctgggtccag gtgggagcat ctgattggcc cccactggtc 51094

atgtgctaac caggaagtgg tgtgtgatgg gctgagccta gggctcatac ctgcatgtgt 51154

tttgggggaa acagagagaa aggtgtggcc tctccacttc tgtggacacc ccaaatagga 51214

agaagggtgc acacaaagca ccgcttcctc cacgaagccc tcctcaggca catcgaggag 51274

aaccagctgc ccaagctctt ggctgctgcc cttctgaggc ctgcctggta ggtggcgtag 51334

gaggaggctt ggtaagcaga tgatgggaca tcatctacca catcccatca gtaacatcca 5139

acaagtgtgt gtgccagcac agacctgggc actggcatgt cccagccgtc attccatgtc 51454

aaatacttat ctgtgccgtc atcgtcgagg tctggtttcc aactctatgg ctccattgtc 51514

tcaggtttaa ccagtcctct tattgggcat cagcttttcc atttttgctc tgtgagaggt 51574

tgttgagtta gttggaggac caagcccata atttcctgga tgacagttcg tgtcccgcag 51634

atagagctta accaacagtg gttccctttc cagacctaag caggtgggag tcagagatga 51694

gcatagagaa agggtgaagg ggtgcctctg gattcccaag gcagggacat agctggggga 51754

gctgcctccg gactcgcaag gcggggggtgt ggcagacact ttgcagaaaa agtacatctg 51814

tccttggggc gagaggccgc acatgcagcc ccaagtccct ggacctgtga gatcctggct 51874

gcctgctgtt gatagaacgg gacaggtggg gggatgcttt tgattcatgt acggtgaatg 51934

atcttattct cacctttatc actggtggca cattctgatg gaaggagaca ttggcagtgg 51994

gactgggcaa gaaacaggtc atttgtcatg gctgtgtgcc agcctcctgt cgttgcacag 52054

cctgtccttg ggaagtcttg ctcacctgtc atgtggagta gttgtatgtg tgtgagtgtg 52114

tgtgtgactg agagagacat acacatatgc acacacacgc agaagtgtct gtacctctga 52174

gaatatagtt ctccagagga tgcagaaaaa ttggggattg cagactgtcg tgcgtttaaa 52234

tgtgtccttc tctcaagaat aatgtccact tggaacctca gaatgtgacc ttatttggaa 52294

atagggttct tgtgtatgtc actagttaag ttgaggtcat attggattcg agtgggcctc 52354

aagtccaatg gctggtgtcc ttctaaggag aggacacaca gagacacagg gagaggaagg 52414

ccgtgtgatg acagaggcag agattggggt gatttatcta cacaccagaa gccaggaggg 52474

agtcagggag cggctcctcc ctcagagctt ccagagggag ccaggcctgc ccacgctgtg 52534

atgtcacatt cctggcctcc agaactagga gaggataaag ttcgattgtt ttccagctgt 52594

ctgtgtgtag taatatgtta cagcagccac aggacactga tacccagaca catcccaggc 52654

cctaacatcc cagaagagga gtccctgata ctcctctttt gcaaaatgag gtgtgggctc 52714

agagcaagtt cgattttctg tgaagggcct gatagtagat attttagact ttgcaggctg 52774

tgtaaatctc tgttgcatat ttttcttttc ttttctcttc ttttctttc ttttctttct 52834

ttttttagac agagtctcac tctgtcgcct aggagtgcag tggcagtggc accatctcag 52894

ctcactgcaa ccactgcctc ccgggttcaa gcgattctcc tgccttagcc tcccgagtag 52954

ctgggattac aggcacatgc caccacgctt gcctaatttt tgtgtgtgtg tgtttttagt 53014

agagatgggg tttcaccacg ttggccaggc tggtctcgaa ctccctacct caggtgatcc 53074

gcctgcctca gcctcccaaa gtgctaggat ctgttgcaca tttttctttg tttgttttgt 53134

tgtcatttgt ttgttgtttg tttcacaacc ctttgaaaat gcagaaaaca ttcttagctc 53194

ttgggctggg tgtcactgag tttgccctag gggaaccctc accgcatgcg aagctgagtg 53254

ggcacggttt cctccgctgt caacgggaat attgatggtt tccctgagtg aggacccagg 53314

ggaagcactg ggctggtgcc cgcctcctgt ctctgtgccc aggcctactg tctgcttcac 53374

actttactcc ccagaaccag gcatggcact tagtacaggg caggccgagc tcgggggaga 53434

tttgcttgaa gaatgaggaa cgtttctgga agcctctctg accacccagc aggcaggggc 53494

aggtcttcct ctgagaccca agtcctctat gcttccctcc atcctagcag tgacttccat 53554

gacacaccat tgtccctttg ggagcacagg actctggctg agtcatctct gaagtgaggt 53614

gaacccagca cagggactga tggcttggga agagcagctc agcctatgtg gggggtgttg 53674

agggtgccca ggcccagggg cgatttgatc ccaccctacc ctagcgcagc cagaatgctg 53734

gggccgaggt tcacctggga gatgcaggag tttagagaag aggaggagga tgtttaagcg 53794

tgcgagctgg tgataggagc gtggagttgg agctagaccc agacttgaat tctggctttg 53854

ctgcgtggca gcagctgtgt ggcccttgat gagtgtctta accttgctgg gctttggctt 53914

cctctccagg agggcatagc aagtcctgcc tgttagggcc atcctgagga tggggtgacc 53974

agagcatgag cagccgggtg cccagggcac ctgggcaaca gccctgtggg taggtgggtc 54034

tgaatggttg agccccacgt tttagtcaag accactctcc ttgcagagca gttcatgtcc 54094

acttgcccac atccttcctg tcccagcacc gtctgtaggt tgctatgatc accccatttt 54154

acagatgagg aagcacatgc ccaaagaagc aagtgacttc ccaaggcggc aaggcaaggt 54214

gaggggcaga atgaggaccc caacccagtt ctccccaccc cctccttccc ttccagagcc 54274

cctgcctgct ggaggcattg tcccagcggc agagggtcag gccacatctg ccagagctaa 54334

ggggagtctc cgtcatctca aatcattggg tcaaatgaca gaaatctgct ggcatgctgc 54394

cttttgaggc tcggcgactt ctctgaggct ttcctgatgg ctgctctggg tgtctggaat 54454

gagctgtgga cgagggccgt cctctgagtg accatgcccc ccacgcagcc gaggttcccc 54514

tctgcctggc tcagtgcggg ttctgagaaa gcctgcctgc cctcactgga ggcacctctg 54574

actcactgct gcaaggatgt ggccatggac tggggtcccc gggggccccc gaaagcctca 54634

gcaggagaac atgtttatcc agaagcctgg gcaacaccca gagggtcctg gcatgggtgt 54694

gccaggcaga ctgggcatgg aaacatgccc cgtgatgtct ttgggatcct gggagcctga 54754

ggcttgttct cagtgtgtag ggcaggggct gggtgccacc caagggggggc aaactgaggt 54814

cacagagagg gaggcagtac ccccagaaaa ggtgattctt ctcattggaa gattcccaag 54874

gcccaaggcc tgggtcagca gacagtggaa caagggtaat ggtcatgtcc ttaattcacg 54934

taaccccgag gtgggtccct gtgaaaatcc cgtggatggg gcctggtgat ggctacactt 54994

atattctcag aagcagcatt accacctgga cccttccctt ttctcttact ccctcctcct 55054

cgtggggtct gcaaggggggt ctggtaaatg gcatccccct ccccgcccag gggctggacc 55114

cgtggagcat aagccaaaag gggcggcaaa gagagacacg gaacctcact gccactgccc 55174

agctgccggt gctgcaggac ctggcttagg ttcaggggcc cggtgggctt ccccagtgct 55234

ggaccccagc aggcaggtgt ggagggagca gggggtagtg gagcagagta cagtggcccc 55294

tggctgttct cccccaggaa gagaggagag gcggggctgg actctttccc atctccctcc 55354

ccaatactcc agcgtcagtc agtctccccc cgacagggggg aagggagaga ggccaggagc 55414

cttcccctgg ggcacacaca gagagcccag caggcttgga agaagtgtct ccctcctcct 55474

ccagccctgc cagatggtcc cagccctcct gcagggttcc cgaagtggaa ggatctggac 55534

tcagagccca gtgctgctgc ttggcatctg tggtcccggg ctggagggcg tgttggcagc 55594

tcatgcctgg ccagcgcatc ggggtggctg cagcagagga tgggggaggg gagcagggac 55654

aagaggagcc tgcaggctgc tgggtgcagc cagggcttct gcttcacccc ggggggtcaca 55714

gctgctttct gttgggaaag ctcccactgg aggtatgggg taggcagtgc tggagaccct 55774

ggtggcaagt gctgagctgg ggcacaggtg aggatcagga ggagctggga gggacatccg 55834

caggttgtgc tgatggactg cctctgagta ttttcacggg atggtggaaa gaggctttga 55894

gtcagacctg ggttcgaatc ctggctccta ctcttggtag cagtgtgact ttatgtgacc 55954

tttctgaacc tcagtttct ctgttgtaaa atggggaaaa ccacacatcg tgggggcngt 56014

tgtgtgcacc taaggaagcc accccagggc tgggcacacg ggtagccgat tgtcatatcc 56074

ttgttatgga aggttgttat ccttgttagg ctggtgggca ggggtggtag aggagtaggt 56134

tgtttttgga aaatggtgga cttagtctta gacatgttgt gtttaaattg ctcatgagaa 56194

atccaaatag aaagacccag ggtgacagca gggactgcta ggaacttggg ataaaaaatt 56254

ggtcctgggg tgctggtcac tgatcctgtg gataaaggag ttggggtgct ctgtttgggt 56314

ccagctggca gagttggacc agttgagaga aacttctagg aggaaggttt agaagaagaa 56374

tgctttcacc atcagagcta tcttaatagc tgtgtaatgt ggtagtgagc tccccatcgt 56434

aggaggtatg tgagtcatgg ctggaggact acttggaggt ctgttgtaga aggattcaga 56494

caccagagag ggttagactg gatgaccttc agttcccctc ctgggtgacc acagctcttc 56554

aaagcccctc actgctgccc gcttctgcag gattcagggt tgaatgtcag aagtctgctg 56614

gaatgctgtc gattgaggca cggtgacttg gccaagcctt tcctggtggc tgctctggta 56674

tctggaatga gctatgggtg agggccgtcc tctgagtgac cgtgcccccc tcacagctga 56734

ggttcccctc ggcctggatc agcgtgggtt ctgagaaagc ctgcttgccc tgactggagg 56794

cacctggagg tggttttcaa agtgtcactg tcaccgtgac ccagacatgc ttgagcccca 56854

ggctgggaaa gctttttttc tttgctttaa aaaagcagaa acagtgaagc aagcataaat 56914

ttgcctttga aataagaggc tgaatgtctg ccaaatgcaa atggattgaa atggccggtg 56974

gtctgacctt gggatgttcc attggtagtt tcagaggggc tctgagcccc caggccggct 57034

gtaacagtgg acatgctggc gctggccagt ttgatccctt tgaaagcccc ccgatattca 57094

cctccaagag agaaggccct ggcaggtcct ccagcatgcg gacgaggcgc atgcactgtg 57154

aggcagcggc tctgtgggag gacggggcct tttgtccact gtcctggcat tccatggccc 57214

tgtgtcccca gatatccgca cctgttcctg acaccatccc ttcctgtcgt gtgagcgaga 57274

tgctcttctg tggaacctgg gttcctatgg tcactgggag ggtgaccctg agttcacaga 57334

gaaaggggag caggctgttc aggaaaacta agcacatgtg gtgagcatcc acaggcggct 57

agggatggaa ggcttttcat ccgggctttc agatgaggcc cctgaagctc agaggggtta 57454

ggcaattggc ctgaggttgc acagccagga aggagtgatg gcgtagtgat tcccattggg 57514

ctctcccacc ccctgttcct ccctccatcc agcccagggc ctcgtggata cattaggagc 57574

ccaacaagag ttcccctccc ttctcccttg cttctctgag cctcggtttc cccatccata 57634

taccaggagg aacccctgc ccatctcnta gggctctttg acatggtgaa atgagatcca 57694

gatactggct gtctgtgtca actgtaaagt gctgtcctga gtgaccagtt gttgttggtg 57754

cctgtagcca tccttgaggc taaaagagac tgctgcttgc ctgatgctcc tcccgccagc 57814

ctcctgcttt ctgcgtgact tccctcgccc cagcaatgaa ccctggagcc acctgcaaat 57874

gggaaagctc ttttgttagt ttccacagaa tgcccaccgt gcacatgatc agagagtttg 57934

cgagcctagc tcaggtcagt ggaactggtt cttttcgtac atgtaggaag taatgcaggg 57994

tgctgccgaa taaatccact gcctgcctgg cctctgatga acttaccagc tcacgccagt 58054

tctagctcca gccaggagga ggaaaaaggc atactaggcc gtattttgtt tctttcaatg 58114

tttatttacc tgtacacaca cacacacaca cacacacaca cacacacaca cacatacaca 58174

ggcaaaactt atgttactgt cccatgcata attctctaga tttgggccac atagatctgg 58234

ttttggccat tgactggcaa catggcagta gccaactgca gagccaccag ggagcagcct 58294

cattctgatt gagtataacg aagacgctga tgggaaagag agacacgggt gagcaggggc 58354

tgtggggcat catgagagtt gggagggtcc ccatcgtgga gctggccagc cctgagtggg 58414

agccccggca cagtcctctg ctagctgtgg cctttggcca gtctccactt ctcagagtct 58474

cagtgacccc agctgccacc accaggattg ttggggtgtc caagaatgaa aatagggggtc 58534

atccctggcc ctcaggggat atgtgggctt tcccctcatc atgaatggaa caggtgagtg 58594

ctgtggtgca ggctgagagg cggcagggtg ttctctcaca gcagggtcgg gtcttgctct 58654

gataactgca ccaggacaaa catccccagc ctctgggatg cacacccacc agcatctgcc 58714

cggcaggttt aattaccggc tgagatgggt tgtgttgggc tcactaagta tgctccataa 58774

gtgatgaaat tgggcaagtt ctcacctctg gaggctctga ccccgagtag ctttgaccct 58834

gagtagctga aggaacaggc agttcagcct ctgcttatgg gctgtgtgtg cacacatgca 5889

cgagtatgag agtgtgtcag tgtgtatcgt gtgaatatgt gtgcaggtaa gtgtccatgc 58954

atatgtgtaa gtacatgaca atgtgtgtgc gagtacatga ctgtgtgttt gtatgtacaa 59014

ctgtgtgtgc acatgtatgt ccgagcacat tggcgtgtgt gtgaatgtga gtgtgagagc 59074

gtgtgatttc atgactgtac atgttcactc tgtttattct cgggggaaat agcaggcaat 59134

ctgtaagaaa atgactgtgt aagtttcatg ggtggaggct tatgatactg ttagagtcta 59194

tcttagtctg ttggtgctgc cataacaaag ataccataga ctgggtgatt cataaacaac 59254

agaaacattt ctaacagttc tagagctggg aagtccaaga tgaaggtgcc agcagtttcg 59314

gtgtctgttg aaggccctat gcctggttca caggtggcga cttcctgttg tgtcctcaca 59374

tgggggaagg ggcaagggag cttttgtagg cccttcttct aagggcacta atcccattca 59434

tgggggctcc accctcatga cctcatgacc tcccaaaggc cccacctcct aacaccatta 59494

tcttggggtt agggtttcaa catatgaatt tgaggggaca cagccattcc atctgtgacc 59554

gtcctcaatc agccttctcc ctgcagggct gcaaatgagg gtgctgccgg attcataaga 59614

gaagatacat tgtaacatcc acagcacaca ggcactaggt tgggagcctt ttccagcact 59674

cagatcaggg ttcaaaccct aactgtgccc ttcaggagct gtgtgacttg ggcattcctt 59734

cattttttat tcaagcacac agctggcatc tacatgcctg ctgtgtgtca gggagataga 59794

aatagagggg tgagcccctg tgatattagg caggcagctt tcccttccag ggtctcattt 59854

ttctcactgg tgaaatgagg gcaggggctc ctcccctggg gttactttga ggggtcagta 59914

aggtgaacag ttacagtctc ttgcacagcc cctgaacgtt gtttagaagt caatactctg 59974

ttccatccca tcagcttcct cttcccttgt tttgactggc aaatagtcat caccttctga 60034

agtcattaag agaaggtctt tttaaactat tatgatgcca tcaaaactga cttttgatcc 60094

aaaatatctt ttaaacaagc tgaccattca gtgaggattt gccaggctcc tttgtgatcc 60154

atccttttgg ggccagggtc tgtggggccc agagctggac atcatggaac tagctctgag 60214

gagctcatgt tcaggtggga cacagtctcc tggaatcaca gttctaagca ctttccaact 60274

attaactcat ttaatcgtta attactacca tttcccagat gatgcaccag ggatgttaag 60334

taaccaagga atatggcagg gccactggga tagtgggctg ttagaaaagt cagggtggag 603

gccgggcncg gtggctcatg cctataatcc cagcactttg ggaggccgag gtgggcggat 60454

cacgaggtca ggagattgag accatcctgg ctaacacagt gaaaccccgt ctctactaaa 60514

aatacaaaaa attagccagg tgtggtggcg ggcgcctgta gtcccagcta ctcaggaggc 60574

tgaggcagga gaatggcgtg agcccaggag gcggagcttg cagtgagctg agattgcgcc 60634

actgcactcc agcctgggcc atagagcaag actccctctc aaaaaaaaaa aaaaagaaa 60694

tgaaaagtca gggtggagta cagacacaaa ttagagaact taagaggcac caacaagagt 60754

atgggcagta tagggagaaa tggaattagc acggagcagg ggcttcctag ggaggaatga 60814

tgggaggaga cacctccttc ctgctgctcc tgctgtgtgc cagcctgggc tgggagcgtc 60874

acgccatcag ctccagtatt cattccagcc ctgtgaggct ggcagcaggg tcctcctagt 60934

ggggctgaaa ggtgcaatgg tgaggaggag gattgcaggg gctggagtcc tggccccacc 60994

acttcctggc tgtgtgactg tgggcacgtt actcaccctc tctggccctc catttattca 61054

tcattaaaat gggattaggg gccaggtact ggtggctcac acctgtaatc caagcncttt 61114

gggaggctga ggtgggtaga tcacttgagc tcaggagttc aagaccagcc tgggcaacat 61174

ggtgaaactc catctctaca aaaaatacac aaattagcca ggtgtggtgg catgcgcctg 61234

tagtcccagc tacttggtgg ggctgaggtg gaggattgc ttgaacctgg gagggttgaa 61294

gctgcagtga gcagagatcg caccaccgca cttcatcctg ggtgacagag tgagactctg 61354

tctaataaat aaataaataa ataaataaat aaataaataa ataaaacagg gggaatagta 61414

gtccctactc catagggctg ttgtgaagat ctagtgagat caatgttcat gaaggacttt 61474

ggcgctgcac acgtttctga gaaagggtga cctggccagg ctcactgggg tggtaagtgg 61534

cagggatggg cttctccacg tctcccctgt gatattaggc aggtgtatgc agttgcttca 61594

cgtccagcca cacccctca cacacctgca gaccagccag catggcacac cagacacatt 61654

tctgctgcac ctttccccac acagtaccta ccacctggcg tgcctctctg cccatcccca 61714

tctttttgat attttacctt ccacctaaat ccgaactgaa atcccagacc tcactagctg 61774

gtgggtgcat ggggtctctg ctctgccact tctggagctg ctcctagtgc atgccccagt 61834

tactcactcg tggccaccac cccccgagtc aggggtcgag agtccccttt gtccatgatg 61894

ggtgacgagg gcatacccgg aacagagggc taattaaatc acacgctgag gtttgtagaa 61954

catgggacgc ttcattaggc tctgtgtgaa caagtgcgcc cagcctgctc ccactactcc 62014

agcagactcg agcctggtat aatcacagct cacactctgc ttcatcagct cgctgaggct 62074

gtggggaggg ctcacacctt tgggctctaa agagagtggg cctgaggtgt gggatcctgc 62134

ttctgagcag gggtgtctgc cccgagccag cttgcccagt ggtgtggagc tggagccccc 62194

tctgcttaag taaaggcctc tgagggacac atgtcatgca gatgatgaca ccagactggc 62254

tcctcacttt aaactctact tcctgagagc agaaggcagg gaaggcctca gttggaggtg 62314

aaaatggaac tttcatccac cagatgttag ataaaagata ggaagggtgt tccaggcaga 62374

ggggaaagtc tgggcaaagg cttggaggat aaaagggcac cgcatgtttg gggagcgggg 62434

catgttccct ggggccagag acctgagttc tcctcttggc tctatcccca gctccaccca 62494

tgacttgggg tgagtcctga accccgacca accttagtgt ctccagggct gggatatggg 62554

ggggtggcag cctctgatct gtggtcacag ggagtctcag ctgtggtgct cctgtgcctc 62614

cctcttgcta ctctctggcc agtgacgatg gcactttact ctcctgcaga gacctgtccc 62674

cagtgcctgc ctcctccagt cctcttcctc atgggctggc tgctctgggc acatctcagg 62734

gcagccccag aaggtgggct gagctgttat ttggggcgtg gggttctcgg ttcctccgct 62794

ccatgctggt gggcctggtg cctggcacca ctggcccgtc ttccaggaag ctcactgaca 62854

ccatcctgga tgggccttgt tttctctctg gcctgggagt cagctgcact ctcgcaggtc 62914

ctaggccaag gtgacctgct tgtttcattc ttgtctttct cctttgcttt atggtatatt 62974

tttaagcata agatatattt atttgtaaaa taaaagttca ttataaaatg atgccttaat 63034

taccttcctg caatataaca attatttggt tgtatagttc ctgttctccg tattttgtgt 63094

aataaaatgg acccaatggg tgctgcacaa tgctgggtgc cacagggaac acacactgct 63154

gttttctcct ggatttttaa aattttaatt ccagcatggt ccttttatat gtgctttcac 63214

tctagctgtt tgcctacatc tccacagttt tgattgtcca gggtggtgaa taaaatgcaa 63274

cacttggcat cttttaatgt ttaaaaaaat caacaagtat tttatttaaa ataaaatgtg 63334

aatatctgta atcctaaaaa aaaaaaaaaa aaagccacag gatccttgag aggccctctg 63394

agacagtgac acccctgacc agctgcagcc ccctgtccac tccccaggct ccattctctc 63454

tacccactgc ctctgcatcc tccgcccttg gagtttctca gggtgccccg cagatcacct 63514

gtggcccaag tgctcaggga cttgtttaaa attcagattc ccaggccccg cccaggcttg 63574

caggcagcca gggccaagga atccaaatac taatcaagcc cactgtaatt gccctgcatc 63634

tgaggtctga aatcactcgc ctgctctgga ttatctgtgc tccagggtgg cctcagttta 63694

caccatccta cctccccatt gaaaccttac tgctcacgat ggcccaggtt cccacccatc 63754

ctgggagaga aagatgattg gctcagttct ctgggaggcc tggtgattgg ctgcctctag 63814

gagggtgtgg ctacctcttg atccaatcag tggagggcag catggggatg tgatcatgca 63874

gtgaagaacc tgtaccgggg gtagttaggc gccagggaag gggaggagga gaaaccagtt 63934

ctactgttag tatcagctca tctaacattt ggcccctggt gggggttttt gcatcctttt 63994

gggggtctag gtctcttctg ccattttgtt ggcactttaa tttcttgtta acaaacccaa 64054

gagcacatac aacttaattt ttaaattccc aataatttcc agcatcctct aagttagtgc 64114

tgagcgatag aaatgtaacg gaagctgtac gtgtagtttt aaaacttctg atagccaggt 64174

tatgcacgta aaaagaaaca ggtgaaatta attgtaataa tttgtatatc caaaatagta 64234

taaactgtaa tcaatctaaa gtaattgaga cattttacat tctgtttttc atattaaatc 64294

tttaaaattc ggtgtgtgtt ttatgcttac catacatccc agctcagact agccacattt 64354

caagggttca ttagccaccc atggctggtg gtccctgtac tggatagcgc agcactaaat 64414

gatggcttta ctttgtatcc ttggggaagt atgtattttt gaatccattt tcctcacttt 64474

tgaatagttt aagaacttcc cagtccattt gtctaagggt atttgacttc taaatgttgg 64534

gtttcttggc cgggctcagt ggcttacacc tgtaatccca gcctttggga ggccgaggta 64594

tgcggatcac ttgaggtcag gagtttgaga ccagcctggc caacatggtg aaaccccgtc 64654

tctactaaaa atacaaaaaa aataattagc cgggtgtggt ggcgggtgcc tgttgtccca 64714

gctacttggg aggctgaagc tggagaatcg cttgaaccca gcaggcgagg ttgcagtgag 64774

ctgagatcgt gccaccgcac tccagcctgg gcagcagagt gagactccat ctgaaaaaca 64834

aacaaacaaa aaaaccagtt gggtttctag caataaatgc tcataaaatc tgctggagtt 64894

ttggaggatt agtccattca tcctgacttg tgtcctgttt ctgctgggtc attgttgact 64954

tcccccactt gcctcacact tgtaaggcca tgtggcacac catcaacatt catctctgat 65014

taaggagctt gtttcttgta gtggctgcca taacatatta tcacacgttt ggttgtttaa 65074

acagcagaaa cttacactct tcctgttcta cagtccagaa gtccaaaatc atggtgtccg 65134

taggcctacg ttccctctgt agcctgcagg ggtggatcct tccttctcta gaggctgcca 65194

gcatctcttg gctttatggc cacattactc taagttctgc ttcggttttt acatcacctc 65254

ctcctctttc ccccatgtct tctcctctgt gtgtctctta taaagccact tgccactgca 65314

tttagggctt actcagataa ttcagaatga tcttctcatc tcagaatcct taattatgtc 65374

ttcaaagacc cttttccaa ataaggtcac attcacaagt tccagggatt agagtgtgga 65434

catacctttt gttttttatt ttattttatt taatgtattt atttattttt gagacagagt 65494

tttttccctgt ttccctggct ggagtgcagt ggtgcgatct cggctcactg cagcctccgc 65554

ctcccaggtt caatggattc tcctgcctca gcctcccgag tagctgagat tacaggtgcg 65614

tgccaccata cccagctatt ttttttttgg ctttttcttt agtagagaca gggtttttcat 65674

ccaacagatg ttagataaaa tgttgcccag gctggtctcg aactcctggg ctcaagcgat 65734

ctacccgcat tgggctccca aagtgctggg attacaggcg tgagccctgc accctgccaa 65794

gagtgtgtac atatcttttg tggggcacca ttcaacccat tgcagtgagg tgtcagtgtt 65854

ttgacaggaa gaagcagcaa agaagacaaa tcagcacttt atttttctaa gctttgaaat 65914

tcttaaaatg atagtgggtt aagaaagacc aacttcccca tggaaggtgc tggtccacac 65974

tggctgggtt tagatccctt tggctgaggt ttagatccct ttggagggga gtcaatttga 66034

agaagaagca catcagacac attcaggaag gcaaacccaa agacagcaga aaggcaagaa 66094

tgtctcaaat tgttcaaaaa taaatacgtt agttcttgta acgtgctccg aatagggtga 66154

ggctcaacat gagcacttaa taaatgctca gtttaattgt ggtaattgta attctcattg 66214

gtatatattt atgtcctgat cctatacctc tgttattaat gagactgata ataggtaagt 66274

gaagggaaaa agagacccccc ctgctgccag gaaacaaaac aaagtatcga gccaaatgcc 66334

aaatccataa gtcaccaaga tgggtttttga tgacaaaacc tttctttctg gactcccct 66394

gcccctccgc gaagccgttc cccatggcca cgcttgtccg tggctggctt tataggccca 66454

tccttctttt atatgatcat caagatggca ctaatttggg tttgcaaatg aggtttttcgt 66514

gatgttgtca tgtcagcatc tggattcaag aggggctgct tcccagaccc tgaccctccc 66574

ctgtggcctg ggagcaggcc cagcccctcc ctccatctaa tcactcccca ggaacctggg 66634

ggatttgcta atgggcccag gaagccataa agagtaatga aagtgctgtg tgactgctct 66694

gcacggggtt gcccttgggg tcccttcctc ataattaaat tcggaatcct ccttctgcct 66754

ttgagctgga agagagggtt ttatcctccc tgtggtctgt tcatcccttc ttccccccat 66814

tcatttgttc agcacttatt atccagttat ttgtttatca agccacagtt gaatgcctgc 66874

tgagagccgg tttagggcac tgagcttcct gttctcaaca ggcagaggtg ggagcagcca 66934

ggctgctgtg ggaagagcag agtggctatg gagccgccct gagccagctc tgctgtgcgg 66994

gagttctgcg acctggggaa cccgctcgct tggcttcctc atctgtaaaa cggggagact 67054

aatataatag cagctacctt ccaggggggc tgtgagaatt aaaggggacg atggatataa 67114

actcccacac actgtcgggc acagggcgtt aatagcagcc ctcagtctca tgtcccactt 67174

attttgtgcc cgacacactt ctgagcatct tatgtctatt cactcattta atttgcccag 67234

taactctagg aaggaggtca cgtccatggt tcttatttttg ctgatgaggc agttgaggta 67294

ggcagaggtg cggtgccttg ctcaagatgg cacagtggaa ggacacgggg cagggcggac 67354

ctgaccgcag ttggccctcc cttgcctgcc tcttagcacg catgcagccc cctcgcctgc 67414

tctgcccgtt gtgtctcaga atctccactg ccatttgcgg gtgccctgaa tccacctcgc 67474

ttttccgtgc ctccctgctt ttgtgcttgg tgcagacccc tgcttcctca tgggcacctg 67534

cctccttaga accccccttg gaatctgtta actacagctt cctgggccca caccagcatc 67594

cctctgcaac tcagaatttc cagggcccat aatttcctac aggcccctcg ggtgattgct 67654

ttctcagtag gcaacttagg gccgtccctc caaacctttta gagtgagaag cgtgctacct 67714

gggtgcttca taactgatgt tgcaaatgtt caaccaagtg taggaagtga acacactttg 67774

tatctgcaaa gtgctgtgca tacaagcgag gtcaggagca gctggcaccc gtccccaagg 67834

gtttccatgc ctctggcgag atagggtagg agtatctgca agtagctgcc ttcttggcca 67894

tggaagaaca agttcaacag ggcgcctctg tgtgcctgcc ccttgctgtg tacaaggacc 67954

ttgcacttca gggacatcaa ggcaccttca gccgggcttt ggggaacttg tgtatgggag 68014

gggggggacct ctaaggacct ttcctgtccc aaggagctcc ccagaagcct gttgcagtgc 68074

ccagcacccc agcctcatgg ttaaggtagg cagtccccag gagtcccctt cctgggacat 68134

caactctcct ggtgggaaca aatgctgagc acctcagcat gagatgggta cagtcaggga 68194

ctccacaggc aggtcatgtc acagacaagg tcacacagct aggtggtggc aggttggaga 68254

gagagggcag tcccctgact cccatcccag tgctcttttc tcccatgaca gtgacgggtg 68314

aaatggcaca gtgtatccct gtcaggcagg aggggatttg ttgtactttt tttttttttt 68374

ttctgaggcg gagtttcact ctgtcaccca ggctggagtg cagcggcgca atctctgcac 68434

actgcaacct ccgcctccca ggttcaagcg attctcctgc ctcagcctcc tgagtagctg 68494

ggattacagg cacccaccac cacgcccagc taactttgt attttagta gaggcggggt 68554

ttcaccatgt tggccaggct ggtcttgaac tcctgacctc aaatgatccc cctgcctcgt 68614

cctcccaggt tgtatttta atcctccaca actaaatact catgtcagtg gaaaggttcc 68674

aagctcttta aagacagcct ctgccagcgt gctcccaggg gaggccaggg aaggctttgg 68734

gaagcctccg tgggggtggg gacctcctgc aacccctggc gcacagcctc accccgctgt 68794

aaacagagct gggattgaag tgcgatttcg gtttcttttt cttttttct aatcaaataa 68854

aaacacctag ggggcaggaa gcgaggagga agaggccagg gagtaattct tgttgccaaa 68914

ccagtttcta aggggctccg ctccgctccc agcatttctg tctctgaggc tccgacctct 68974

gagatgatca atcctcccat ttcagccaga tgagaattgc tgtgggccct gccttttctt 69034

aatattttgc atgagagcga cagcccggcc agcggcagta atctcccacc cacgtggggga 69094

ggcacccact gtcctgccat gtgcataatt gaagtcttca gactgctcag tggttctaat 69154

tagcccaaag tggccccttc tggcctcagt ggaaattact gccctcctgc cgcctggtct 69214

tactagctga tctttgaagg tgtgagtgag ccgggagacg tgcagagcct agcactccct 69274

ctgctgcatt ggtctttctt ggcaggcctt catggctttg cagagggcgg gcagttgagg 69334

cctctgtctg ccgttgaggt cctgcctccc tcctctctgc caccactctc catgggacag 69394

gtgctccagc tgggcgcatg catgcccctc tcacctgaat gcctcccact agcagtgtct 69454

ctgctctttc tgacccttca ggttatgcag tgcctcctcc tccaggaagt catccctgat 69514

ccccaggctg ggccctcaga atccccatgt ctccctccat cgcagccctg gccatgccat 69574

gtggtgcttg tttacatcca tgactgcccc atgagactgg gagcccctag ggggcagaag 69634

ccgctccatg tcccacctac tcctggccta gcgcggtccc ataggacatg tctacggaaa 69694

tggagggcgt gagggtggga ggaaggaagg aaggcaagaa ggaaagaagg aaggagaagg 69754

aaaaaggaga agagagaaaa gagggagggt gggcaggtag caccatgccc attttgcagg 69814

tgagaacact gaggagacat aaccgggaag tggcagggcc aagcacaccc ttggcagctc 69874

attatacttt cccttcagcc tagcaaagct actgttcgat ttggggaaat ggggccgctt 69934

gtatgaagag ccgcaggcaa agtggaaagt gccgagggct ggaagtcaga tgggtgtggg 69994

tgcgcagcct tcctgtgtac ctgtgggcac cacttacctg ctctgtgacc ctgagcaggg 70054

cacctttgcc ttcgaaactt gaagatcaca gtcgtccagg tggattcaag gcgatgaaca 70114

gcaacagcgc atgctcttcc caaacagtat tcttcttatc ctcactgaag ccccagaagg 70174

tagttgatcc ttaccacatc attaacctca atgcgcagat gaggatgcca aagcacagag 70234

aggttgagca actggcccaa agtcacacag tgcgtgagtg acagagccag gatttgcgcc 70294

tgggttcttg gctctgatat tagtgccatt gactccactc tgttgtgtga ggtatgaagg 70354

catccagtac agtgtctggc atcggcaggt agcttccatg gcagataccc cccctctccc 70414

accagattct gccctttgag cgacaggaag ataaatagcg ctgttctcca gtgtcacttg 70474

tgactttcct ctgtgagttc attgtcaggg tgctcctgag ctgagctgtg gccaccactc 70534

attggtgtgg tccctggaga cacttggata aaattgtgat gacagagggc tctcaggctc 70594

atgagatcac acagaggagg gtggagctca aagggctatc tcagaccggg atgctccaga 70654

ggttaggtct tggtgctgtg tttggccccc agctgctctt tcaggccttg gtcttgccct 70714

tgcccttggt ctctggaagg ctgaatagct gcatcttgtt catctggaaa ctctctggga 70774

tgagtgactt tagcatctcg gatgttgcca tcgtagccca tgtgcataac aacttattgt 70834

gcaagcatgt acagtcatat tgaaaataaa tgtagaagtg aaggaggcag tccaaagacg 7089

gttcctgaca atactcggaa acagcttcat taggtattgg ccagagcttc tatttgtggg 70954

ttgctttggc gaaactgctt ccttaccatt aaccatatcc aggagatgga ggggaaagtc 71014

ttcacctggg ttggtttttc tcagaggggc aggcaagctg aataacggga gtactaacat 71074

ttccaagaag attaatgatt aaaatgttga atacaatttg agacttgttt tcatgttcat 71134

attttatagt ccagaagttc tttctataat gtcctcataa atattttatt tggccttagg 71194

ttaaatgtca gtttccatgt cctgccacgt gccacttgac caacgtgtgt gggaacgtct 71254

ctactttgga cacactgtct atatgaatgg aggcccttct accccttgaa atgttcctca 71314

actcccagct cagtttccct tccgcatccc tttgactgca tgagcggaag cgaggcatta 71374

cagagaggtt tgaggagcca gccagcaagc tagcaacggc ttcagttcat ttctgagatg 71434

tttgcattca ggggtcccat tggccaacct taacttctcc tttgagctct aggcatcttg 71494

tgatgaatgg cataagcctt agaacatggg agaggcttgg atgggccagg agctccaaac 71554

actaaggaat gttgcttaca tcaatagacg ccttagttac ttaggtcaat agatacctta 71614

gttgcttaga tcaatagatg ccttagtaga tcaaacaccc aaatcaccca atgtactttt 71674

agggcaatgg ttgccaaact ttttggtctt aggacccctt tttacactct taaaaattat 71734

tgtggctccc aaagaggttt tgtgtatgtg ggctatatcc ttcaatattt gccaactttg 71794

aaattaaaac tcagacagtt aaaaagattt atatgaattc attgaaaaat aaaaagtgta 71854

aacccattac atgttaacgt aaataatatt ttttttggaa aataactgtg ttttgtttta 71914

aaaagtgaga agagtggcgt gtgtatcaat ctctttaatc tctagcttaa tagatgatgg 71974

ttggattctc acatcagctc ctgcattcag tctgttgtga tacattgttt ggttgaggta 72034

ttgtcgaaca tctatcctca aacagatatg tagttggaaa agggagaacc ccacaatccc 72094

ctgaaaacgt cttggggtcc cctggaggta cttagaccac agtcttagaa ctgctgattt 72154

aggtgatggg tgaaactcaa gatgaagaca aaagagaaaa catttcaacc ccaagagact 72214

tcaatgcatt cacatgcatt gactcaggat cattaaagct ctaactgaac ccaacatgga 72274

gacagagcag gaaacacagc catggctggc ttgacttcag cctcccatca aagaccccca 72334

tctttggctc aactgccccc agtggtttca atcagccaca gacttccctt gtccagctgg 72394

actggacgtt ctgcatttga ctgtctgtcg gctgcccact gattttcagg ctgctgaatt 72454

acccattagc tcacctgaac ccctaatgcc acatctaaac ggtcctcact ctgcctttct 72514

cagcatccga gaatgtccta taaaaggctt cttccatgga ggtgggcagc cttgggcctc 72574

tcctagggtc agctcaggct gcccacgctg gctatggctt cctgctggcc cctggaagct 72634

gtgtacacct gggagagtga ggtgaatgtt aatttattca gcatgcaatt aatgaattct 72694

accctgtgcc tggcacgact catttctcat gccaaagcta gggtggatca gaccaccttg 72754

gacaaatctg gatgggtgaa cttgtggatt gatcaatgat cttagttgat gaaaaatgca 72814

ccaaatgact gtttccttta atgcgattgc ttgggtggtg gactcgatta cgttgagggg 72874

attaaattag cagcttgctg ggtttcagat gagtgcaggt ggctgctggc acttcctctc 72934

ccctcttttc tttctttccc ttttactgca aacgaagact tttcaaagct ttactaagta 72994

caataaatgc catcccctta aagtgtagac ttccatattc ttagaattgg caagctatgt 73054

atatgtttgt gaaatcaccc ccataattaa gatttggagc atggccttca cccacaaaac 73114

gtttcctgtt ctctgtgtgg tccattccta tctctgccct gcaccctggg tagccagtga 73174

tttgcctttg gtcactgtag gatagtctgc actttcaaga atttcatatg aatagagtca 73234

tagatgcatg cattttttgg tctggcttct ttcactcagt gtgggtattt tgaacttccc 73294

cctggttgct gtgtgtgtca atgatttgtt ccttttttctt tgaggagaat tctgttctgt 73354

gaatatgcca tgatttattt attccttccc ctgctgatga atatttgagt tttttctaat 73414

tctgagctac tgtgcagaaa gctgctatga acacgtacgt atgcaccttt gtgagtttgt 73474

gagctttcgt gactcttggt tacaaggatg gttggttcgc atggtagacc cgtgcttatt 73534

ttcacgcttt aagaaactgc cttgctgttt cccacggggc tctatcgttt ttcattcccc 73594

cagcagtgtg tgaggggctg tttgctccac ctcttcacca actccatatt attagtcttt 73654

ttaatgttcg ccactctgat gggtgtacac tggtatctcg ttgtgatttg catctgcgtc 73714

ttgtgatgac tgatgatgtt aagccccttg ccatgtgctt cctgaccatt cttgtatttt 73774

ggtttgggaa gtgtctgccc aaatcttttg cctattttaa atcaggttgc ttgtgtttat 73834

attattgagc tgtaagaggt ctttatacat ccgggctaca agaggtttac tagatacatg 73894

tactacgaat attttctctc attccatgcc ttgccatttt cttttcataa cagtttcttt 73954

cacatagcaa aggtttaagc tttgataaag ttcagtttgt ccatttttg ttgttttca 74014

tgcttttgt gtcttgagaa atcgaagttg caaggagttt cttctataat gtctcctaga 74074

aggctcatgg ttttagcttt tatgtttagg tagatgatgc atttcaatgt cagtttgtca 74134

gatggtgtaa gagttgatat tcattttgcc cccagtcatt tattggaaag actgtgcttt 74194

cctcgtggaa tcacctgagt gcctttgatg acaatctgag ttcaccacag acttgtgggt 74254

ctagttctgg attctctgtt tagttgtatt gatccacatg tctgtccttt taccaggacc 74314

acactgtctg tatcactgta tctttatatc agctggggta aatcctccaa ctgtgttcct 74374

ttatttattt atttattgca aagtcatttt ggctattcta ggtcttgttc taacaggaac 74434

atattttcgc ttatttaatc cttaggaccc tctgaagcag gtgtgaatat taagcccatt 74494

ttatggataa ggaaactgag gttcggagag gatgagtaac tttcccaggt aactgaggag 74554

gaagtgagcc ttgcccctgg taggtctggc agctgcactt gcccttagcc tctaggcagg 74614

ctgcactgcc ctctctgtgg gttccaacca ttcctggtac acacccctag ccaagaactt 74674

gtgaggttct tggaacctca tgcaagaggc tcttgcatga ggcctctttt ccaacttctg 74734

tttatcctgt cccaaagagg tcagtgaggg accccagggg ccgcctctgt tccctcaccc 74794

tgcaccttgg ccgggagacc cccgcagcgc agggagcatc cctccggatg tttcttccca 74854

ggcaacaata ttctgtttat caagccaggc cccgaggctg aggcctcccc ctggcctggg 74914

gtgattttttg gttggtggtg agaagcagca ggggtgcctg ggggcctggc tgtcatcgga 74974

gccagctccc tgtcctggtc tctgctgtgc gggatggcat gggtaggggc tttgtgcagg 75034

atgagggtcc tgccgactgg gacgtgggct ttggaagggc cacgcttctc ttacaggggt 75094

gcccttgtgg ctgtatgagg agtccaagct ctgaggttga acactgggat tgaaggattc 75154

ctgccagggt gcacttaggt ggctcacttg gcccagagtg agccagagct ggctcgcatc 75214

agtgcgcggg agtcaatagt tacattttta ggaatttttt gagccagttg ttaaactgtg 75274

ggtagcatgg aaatcagccc tggcttgagt aggctcgcat cagtgcgcgg gagtcaatag 75334

ttacattttt aggaatgttt tgagccagtt gttaaactgt gggtagcatg gaaatcagcc 75394

ctggcttgag tattcatgcc acggacttgg caaatgccgc aaatcagggc cttctctcta 75454

cccccctccca gccccaaccc gaagacctga ttgttaactg cactggcaaa cccctggctc 75514

tgcctcctgg agcctcaggt tccttatctg gaagcgggga gaataatgcc cacaccttaa 75574

ggcatcatca acacccttaa atgagatcat gggtatgaaa tgcttgtgaa tagttttgag 75634

tgtgatacgc aagtgtgagg ggtgctcacc accctggcca ttgccattgt cctcctcatg 75694

gcagcagctg gacaatgtgc ccaggctggg agttggtgtc tccaggaaaa actggaggaa 75754

aggagcccga taacccatgg gcagcagctg ggttagggag ggctccagac ctgcctatct 75814

ccgtcagccc tgctgaatgt gcctctgttt gctcatcttt ataatgggtg cactgatccc 75874

agctgagagg ggtgtggtgg gctttggggt acaggccaca aggtacaagg catggcctga 75934

ctgcagctcc gtcactctca tggctcaggt gcatggctgt cccacagtgg aaggaccagg 75994

ggctggcctg atctgcactt catggcatca agagcacagg ccctggagtc caccaggcac 76054

agagaagcag cctgctcctg ggtggagtac aagttcaacc ctcgggagtt gtggtttccc 76114

catgtggaag ctggcagcat gccacgcacc tgccagggct gccgcgaggg ttcgcacaca 76174

ctgtgtgtaa tgctcctgtg tgagttcccc ggtgacccag gtcccactgg ggtggccggc 76234

gtgtaaccag gacaggaaca tctccaaagc cactccttgt ttgctgcctg gtggctcaag 76294

cagaacatct gtgcctgcag ggggcccata agccttaatg ccctgcagag aggggggcctg 76354

ggggaggctg ggactcacac cagctgggga acaaggcctg cagctggggg gctaccagga 76414

tgctccttgc cagtaaagag ggtcctcagg agatcagcca cagctcaatc aggagggtct 76474

gcccatttca caggggagga aagcgagcct ctggaggctg agctgccagc agtcacgggg 76534

ccagcgcaca gccagagctg accactctgt atgactggcg ggtctgcgcc cttggcatac 76594

cacagcagct ctcacaccaa cagaggctgg acctgctgat cagcccccgc tgtgggggggt 76654

cccgcctctg cccacaccct accccacacc ttcacagggg tggactgtca ccctctagca 76714

gactgtcctc cagagaccga gacacggagc ctctccacaa ggagggagga aagggaggtg 76774

gaaaccagcc ttaccctgga caccgggtgg tccttgctgc atacccaacc ctcattggtc 76834

agactggtct gggagggcct ggacatgccc gcggggtccg tttctgaatt cccgttgcct 7689‹

ggcataagct ctggcactta gtaggtcctc agttaatact tgtcagataa ataaatggcc 76954

tcctttgggg aaatgaagaa tgtccaggct ggccacgggg aaggggcagt gttaggagtg 77014

gagagcgaga gggtgagcca ggcagatggg acctttattc aaagggcagt ggggagccat 77074

ggaaggtttt agggaggggcc atcggatgag gttttcattt tagaaaagtc cttctggctg 77134

ctgggtggat ggggtcaaga tgaagacagg aaatccagag aggaggcggc tgcaggctcg 77194

cgggtgagag gtgaccatgg ccaggccagg gcggaggcag ggaggtgggc ggaggggggc 77254

tgctggctct gccaactgtg accccagcac ccagctcagg gaattatggc cagagacaaa 77314

gcagcttaga gcctgacccc tgccctggag cagataggcc tgggaagggg gctgatggac 77374

acgctgatgt gatgggacct gagaggtgtt cttgtcacca ggccagtttg gcccccatcg 77434

cccgcctgcc ggctggggtc taaaaggctg gctgtagccc cagcagagag gacagggcct 77494

gtgggacccc aggtgctggg agcacagaag ccagccaggc catctggccc ggctgagact 77554

caagtgatag gtccgcatca gtgtcaggcc tccatgcccc ccatcctggg atgggaacag 77614

cacatcacag tttgcagagc cctgcggcag gggtgactct tattgccatt ttgcaaatgg 77674

gaaaactgag acttagagtc tctctgactc acataagcag gacaggagac agtcgaacca 77734

ggtcccccag ctgcaattta ccacatctca aacccttttc ctctctctgt cattgattaa 77794

tctttgcttc aatgtccaca tagttctgtg atttgctttg ggtacatagt agcaataatt 77854

atagcaacaa tttctagcag tttcttggtg ccagacactt ctgtctttgt tgcctcgttg 77914

aatcttcacc atcaaccttg aatatgaaac ccattttaga gattaggaaa ctgaggctca 77974

gagactgttt ataacttact gagaatcagg cagccccact gaggtgcttt accagtctcc 78034

cctttaccag tggttctcaa accttggcac accacaggaa aacctgtcag aatgcagatt 78094

ctaggcccca gcaattctgg tcctgtccgt ctgggcagag ccttggcaag cttcgtcttt 78154

aggagagaag cccaggtgac tgggggtggg gctttccgga gcctgtgttg caagaaggaa 78214

ggcagggagc atgtgatctt ctctcggtct ccctcacctt gaccctgtcc caaggccagc 78274

tgctggcctc aggctgcctg gttgcctttg aaggtccatg gggatccgat ggagggttgg 78334

tcgtgctgaa gccaggctgg gtgtcatcct ggctctgagc acagtccagc ctggctagag 7839

tcaaacccag cagcttgacc ggatcctgct gaccacagac aaatccacaa ctaccccgtc 78454

cacctccccc aggcccatct gcctctgtgc cagccaggct ggcagacact ccatcgggcg 78514

ggccccacct ggcttggcca gggagaaact ggcagccaca gcccctggcc tccccgatcc 78574

ctgtcccttg tgcactgccc atgggagggg cagtggcctt ccacgctggg tctggctcct 78634

gcagtagcag agctgggtgc agacacgggt tggaggccgg ggccatgggg gcattcgtag 78694

gctcatgagt cccttctcac tctcttctgg ggactgggtt tctgctggaa gagaaaggga 78754

ccagccttaa aagacatcgt gattaaaatg gaattattat ttcagcctgg aaaaggaatg 78814

atgtactgat ctgtgtcaca acatggatga accttgaaaa cattctgcga agtggaagaa 78874

gccaggcaga ccccaaaggc cacgtgctgc tgtatgattc tatttatgca aaatatccag 78934

agtaggcaaa atccatagaa acaggaagta gatcagtgat ttccgggggc tggggagagg 78994

aggggatagg gaatggctgc cgacggatgt ggggtttctt tttggggtgg tgggaatgtt 79054

ctgagtttct ttttggggcg gtgggaatgt tctggcatta gactgtggtg atggttctag 79114

aattctgtga atctgttaaa atccaatcaa gtgtacattt aaaagtggtg aatttcatgt 79174

tatgtatatt gtacctcaac tttagaaatg ctaaaataga aacaacaaaa tcatcatgat 79234

gcaacgcctt tcctcataga cctggagcga ggcctgagag agaagccata taaggcagat 79294

gaggggtggg atggagagct tcctttcatt cgctgcctgc ccagtgaggg tctgcttcct 79354

ctggcactta cttaacaaac ccgagagtca cccatgtgtg aggcatgggc tgggcacaga 79414

agggtccacg cccacccctg aaagtgctcg tccatgctag aaagacagaa ggatggggtg 79474

gtcattgaac ctaagtcaga ccgtggcttc ccagctcatg cagaataaaa tgctcaggcc 79534

tctcccggcc tgctgggtgc aggaccccgg cccagcccac ctctctgagc tctgagctca 79594

tgtcctgccc catccctctc acacgcacac tggcctcctt gctggcctgc aacagatcaa 79654

actcacccta cctcagggcc tttgctcgtg ctggtcacct gatatctgtg aggctccctc 79714

tctcacatcc ttcaggtctc tgctcaaatg cgtctccccc aggaagtctt ccctggcctc 79774

cccagctaaa acagcccctc ccacccctcc catgccattt accatactat agttttcatc 79834

ttagcccctta tatctccctc caagagctat ttattgacat gaaaatttgc ttattggctg 79894

tctctcccat tcgagagtgg gctttctctg gggagtgtgc actgctgaat ttccagtgta 79954

tgcaacagtg ctgaggagag ggtaggtgct cagttaatgc tttttaatta aattttctat 80014

tgtggtagaa tatacatgac atagaattta ccatctgaac catttttaaa tgtacaatca 80074

atgtcattaa gtatattcac gttgctgtgc acctgtcacc accatccatt tctgggactt 80134

tctcatcatc ccagacagag actctgtacc tgttaaacaa gaactcgcca ttcattaata 80194

ttcttttgaa tgactaattg aatgactaag tgtatttcct gtgtgtcggt cacaagctag 80254

gtgatgagcc agtaaacctg gcgcctcgga gggtgtgtgt tcccgtatct gtctcggaga 80314

tggacagatc gactcagaga ggtgtgaagg gctttgccca aggtcacaca gctggtcagg 80374

gtgggattca aacgcaggtc tttcccccctt tccacacagt ggcagttctg ggggatcact 80434

gcatgcaaag ggcatagcca tggcacctcc aggcctccag ccccacccag ggcttcccct 80494

gctgccgctc ccccaagggt cactgtgtcg gccacatgtt cctggtgtcc tcggctctgg 80554

caggctgacc accagtcaca ggcacgtctt gggaccacac ttggaggttt cagcttccca 80614

tttcacctgg tgctcttggg gtggaggccg ggatcatgga atcctttttc catggccttt 80674

aacacaaatc aatactgtgc ccagtttaaa tgtttatgta actcatcatc tgccggctct 80734

gctattacgg tgtgctttc ttttttataaa ccaagctcag gggaggtgat attaagtcca 80794

ggacttgcct ggcgaggccc agcgcgtgtg cagaggattc aatgtggcaa taagggcgag 80854

ttccctgcac agcgcctgcc atggctcgtc ccagcctcct ccctcatctg cttgtgtcct 80914

ctacacggta gggaggaggg agaggtccag agaggggagg tggcttgccc agggtcacag 80974

ccacaatgag gtggaacagg gattgtttcc aaggtgtgtg tggggggtggg acccaggctc 81034

ctgccagagg ccagggcggc agagccctga caggcagatc ctgggttcct gggtgtccag 81094

gttacgtggg tgggcaggtg gcagctggca cccaccccat acagacactc tctgacaccc 81154

cccaaaaata ctcccaccag cccccttcaca ttttcctcca gccaagtgac caaagcacag 81214

ctcagggccc atttgccctg gccacactgt ccccactctc cccacccaac ctctgaccac 81274

aggcctggga gctgccccat ctccaccaag ttcaggctgc aggaggaaac gtctcaccag 81334

gcccgctgga aggtggggtg gtgatgaaat gtggggggttc ttcagcgaga gtggaattca 813

gtaataaggt gatcatcact gccgggcggt gcctggactc atgatgagcc aggactaggt 81454

gagtgcagag ggctggtgag caggcctgat ctgtgacccc ggtggccctg cggctctcag 81514

accccctcaca taaaatccca tcagggatat tccgttccct ggcccggaat gaggtcttcg 81574

tctttctgat cgcccttgga gagcccaacg gccttccgtc actcactcag tgctgatgtc 81634

cagtcccggc aacagtctga ctccgcccag acttggcgct tcccctccca tgcgcccgcc 81694

gcccggcgtg ctccctgctg gagggtgaca tggggagggg cctggctgca gcccttttca 81754

ggcagctctt gttggctggg aagggagcct ggggatgggc cgccttctac ctgccggtgg 81814

ctgtgcccac tctgagtgtg cttggtgggt gattacagct gctcacagct gtcaggagtc 81874

cttcacaggg cagtctggaa gtttcctgta gagctgtctc ctgcagagtc cttacctagg 81934

gagaccccgc tgtatgtcct gtggccagta gcatcctgtg gctttgctca atcccccagg 81994

cacagtgtgt gcaccccccag cctccctctg ctgtgttctc cacgcccctc tgggcagccg 82054

gcactcagga cctaaggtgg tcctaagcag ctctcccctg tccctggaa gtacgtggag 82114

gtaaaagctg catccctggc agaatcagac cccaaactcc agaccctttt gctgtgagtc 82174

tcaggctagg gtctcccacc tgcaggaatc attttgggcc ttttgagggt ctctttcata 82234

gacgtgggtg gggcgtctgc tcagcacctg ctttctcctt caccaactcc tcagcctccc 82294   .

atctctgacc ccataaacgc tgagaggaga accaggcctg ggggggcaagt tcaaggactc 82354

aggaggcaga ccgctggaat ccaatctctc ccctgccctt actagctgag cggctgttgg 82414

caagttgtct tctctgtgct tcagtttctt catctgtgca atggggggtga taacagcaca 82474

caagaacatc ttggagttgt taagaagatt cagtaatagg tgtaaaatgc taaagctggg 82534

gcctggctcc caggaagtgc ccagaaggtg tactgtgata accacagacg ccacgtcacc 82594

ccgctggacc tggactccgt gaggaggggg ctccccatct ccttatccca gtgtcagccc 82654

gctgctgggt aaattcgctc gccaagccca taccaggtgc taatggctgc aggagcctct 82714

tcctctccct gacatttccc ttcggcagca ggcggacccc tccttcctcg cccacctcca 82774

tccttagcag ccctgatacc tctgacaatg ctaattaaat gcaacaacct catcagaagg 82834

ctcgagctgg gcttgcctaa ggccccctct ctgccctgag ccctgatgga tcattaatgg 82894

tgtcagcagc acttatggtg atggacgagg ggagcaagtc ccccgacgtg ctggggagga 82954

agtccgtgac gagcatcttc atctcctgtc tgcaggcctc ggccagagtt tccagggaac 83014

gtcctagtcc acagaatcgt ttgaatttca catttaccct gggagaacca tggccaggca 83074

gggatgtcaa ttcccattgt atccatgagg cagtcagggc tcagagaggg caagagattt 83134

gggtgagggc acacagctgg taagtagtgg ggctgggact ggattaccac ggctttgatg 83194

aaagctgcag ggggcatctg taagatccaa gggcgatgtc tcccccaggt ggcacgtgga 83254

gaagaaagcc agcaagtgcc accggcttgg gggtagccca gttctcgggg gctggagcct 83314

gcacactctc atctcagctc tgtgtcagtt tcctagggaa gctgtgacaa agtgctacaa 83374

actgcgtggc ttaaaacaac cgaaatttgt tctctcacag ttctggaggc cagaagtctg 83434

caatcacgat gctggcaggg ctgggctccc tctgacggct ccagggagga ctctgttcca 83494

ggcctcccca ccagcttcta gtggtggctg gcaatccttg gcatttccgg gcatttccag 83554

gcattgggag gcccggctcg gccccccaaa gtgctgggat tacaggtgtg agccaccatg 83614

cccgtcctgc ccttcattct tgatgcctcc cttcagcctc tgcctctgtc tccccatggc 83674

ctcctccctg tatctgtgtg tgctgtgtct tcatatggac ttcttatcag gataccagtc 83734

cttagatcta gggcccacca taatccagta tgaccgcacc ttaacttgat catctgcaaa 83794

gactctattt ccaaataagt tcccattcat aggtaccagg ggttaggatt ttaacatctt 83854

tttgtgggat gcagttcaac ccacgatacc atctttgccc atctctggct ctggcgtgca 83914

gggacctgtt actgggcggg tcactaggga taccacctct cacctctctg ggcacccatt 83974

ggtaggcctg tgctgtgccc agcaccaggg ggctggctga ggcctccttg tycagtggct 84034

cctgtgtgcc tctccacttg ggggttgccc tagagctgcc caggaaggga ggaggcacct 84094

caggggggga aggacagcat gagtttccat gggcttctcg tcacccacac agagtgactt 84154

ggaataatgc acccagtggc tgatctgggg ccctgagctc gaggctgcag ccagtggcag 84214

ctccaggccc tgcagtgtgg ggacagcgat ggccaaaaag agcacatgcc aaaggccctg 84274

ccacttaggg gactttggga aagtttgacc aagtttcctt gtctctaagt aaggaatgat 84334

aattggtcga tgggattgtt ctgagatgaa agtgctggtc cttgggaaag cttcagctga 84394

aatgtctttt tattttgccc ttcactcttt ttttttttc ttcactgttg tcgcccaggc 84454

tggagtgcaa tggtgcaatc tcggctcatt gcaacctcca ccacctctca ggttcaagca 84514

attctcctgc ctcagcctcc cagatagctg ggattacagg cgcccgccac catgcccgga 84574

taatttttt gtatttttag tagagacagg gtttcatcat gttggctagg ctggtctcga 84634

tctcctgagc tcaggtgatc cacccggctt ggactcccaa agtgctggga ttacaggtgt 84694

gagccactgt gcccggcctg cccttcattc ttgacgaata tttcgactga attcagaatt .84754

ctgggtttcc aggttttaac atttctttc ggcacattaa aagagtcttc tgggtgccat 84814

tatttctgct gacaagtcag cagtctctga gtcctggtgt ctctgaatgt aatatgttgt 84874

ttttattcta gctgctttaa catttctca ttatttcagt ttccagtagt ttgcagtttg 84934

accaggatgt acctgggtat aattttcctt gtgcttatcc tgcttggagt tagctaagct 84994

tcttaaattt gtaaattgat gtcttttacc aaattgagga atttttcggt cattattttt 85054

ttatgtgttc tttttagtat atcttctctc tcccctccct ctacaactcc aatcacatgt 85114

gtgttgaacc ttttgatatg caacaggtct ttgaggatct ttttctttt aaaaaaattt 85174

ttttctctc tattcttcag actgggtaat ttctattgaa atcatcttca agttcactaa 85234

ctcttctatt ttctcagact ttctgttaag caatttctgt taaggtgtga tttttttct 85294

gtctcagaca tggtatttt aagttataga attttcattt agttcttttt taaattgttt 85354

atatttctct gctgagattt attctttcat gaagtatgag ccaattttct ttacgtcttt 85414

taacacagtt atcatagcaa gtttaaaaat ctctatttgc taattgcagc ggccagcaca 85474

tttcaggtga gtttccactg actgtctttt atattaagta tggctggttt tcctatttct 85534

ttgtatatct tcatataatt ttggatgata tcctgggtgt tgtgaatgat agcataagag 85594

cgactctaga ttttgttac ttctccccaa agagcatttt tgttttgctt tgtatttgca 85654

agcagttaac ttggctgaaa gcaactgtaa accatctgca gtcgtgagtg gtgggcagtg 85714

gcaggagcct ctgttcactt cttctagccc tggctgggtt gcagctgctg gaagtctgtc 85774

ctgtgtgtgt gtggtttggg gtcagcccaa gacatgggca gagtttattt gccccctctg 85834

gggatctgtc ttggtggctc tcttcattcc agaatttact cccacatttt tccagctgct 85894

gcgagtgtct cagactctgt ttgctgctct atcaagccag tgagactctg gctttccgtc 85954

tgagttctgg cagccctatg acacaggctg ggacttgtcc tcaggctgtg aaagccatga 86014

gaccaggaaa gccaacgccg gctgttcctc ccaattgctg accgcctgca gcatctgctg 86074

cggcctcacc ctccgatgcc ttcagagtgt cattttgttg ttgtttttc aagggtttat 86134

agtctatagt tatctgtgag agagttgctg cactaggagc tactaggcta ttaccggaag 86194

catttagagc agggcctggc agacagtaat cacttaagaa atgtgagtta atgtggtcaa 86254

ccatagtgcg gcgctgtttc ctctggtcaa ggctagagac aacgtggaca cagacagcac 86314

catgcaggaa gtgtcagtac ctagtgaaga gcacacaatg gccttaagac tgcacttgta 86374

ggccgggcgc ggtggctcac acctgtaatc ccagcacttt gggaggtcga ggtgggcaga 86434

tcacttgagg tcaggagttt accaacctga ccaatatggt gaaaccccat ctctactaaa 86494

aatacaaaaa ttagctgggt gtggtggcag gtgcctgtaa tcccaactac tcgggaggct 86554

gaggcacgag aatcacttga acctaggagg tacaggttgc agtgggccaa gattgcaccg 86614

ctgcactcca tcctgggtga caaagtgaga ctctgtctca aaaaaataaa taaataaaat 86674

aaaagcctgc agttgtagga gagaccactt aactggggga gggggaaagg ggactatcca 86734

ggaaggcttc ctggaggagg tggtattgga gctggaaatg tcagataatc caagatgaga 86794

agatggactt tcttcacaga ggtggctgcc aaaacaacca attttatggc cttactgatg 86854

agaatttctg gcactcaaga gaggcaactt ttcctaaggc aaatcctgaa gacatttacc 86914

tataaaaatg agtagacatt aaacatccac tagctccttc atgggccaga ggaagcagtg 86974

ctcaggcaag aggggatctg aggtctggtg gtggttctgt agatgtttgc agggagcgac 87034

tggcgggact ggtaggcggg accatccaca gtgaggttgg gcgcccagat ccatcgccac 87094

attgcagagc ttgtggctgt caattctgtg gcagccagga gcacaggtga ccgggagctt 87154

tagtttctgt ccagtacatt ttggtgattc attattcctg gagtcctcgt cttctcttcc 87214

tccctcccag accctctcac ctccttgtct cacttgaacc tctaatcctg ggaaggctcc 87274

accataagca cactacagat aatgaaacca aggctcagag aagttgtgtg gcttacccaa 87334

gaccacacag ctgaagcact ggagccaaga ctccaaccag cacttctgtc tgcaaagagc 87:

tcatggcgta gtctctcatg gagggagcct ccatctcctc tgctgccaaa tggaaatcac 87454

agtagtgtct cccgcagggg ctggcgtgag gttaaaggag gtagcagata tgaaaatgac 87514

atataaattg taaattgccc acagacatta gtgtgtgttg cctggtaacc acccagcatt 87574

tgtggactgc atttacttgg gatagcaata gttatattgg cattttaatt taatagcatt 87634

gttatgttcc catcataaaa ataatataca ctgtgtgtat gcccaccctc atcaaattat 87694

atacattaag tatgtgcagc gttttatata ttgattgtac ctcaatacag ctattaaaaa 87754

atgatgtaac ttcattatag aaaatctaga aaatatggac aagttgaaag aggaggaaat 87814

attattttgt tccagctacc ctaaagctac ctccgttcac attttggaga attctcttcc 87874

agcttttttc cccactgccc agtttctttg cttatttcac atggctataa tcactgatgt 87934

agatcattac aagcatttta tacccaattt tatatcccgt tccttcaccc tcaggggggtt 87994

ttaatatgaa atagcaagaa ccagcgcccc atcggggacc ctagcacagc tgggctgggt 88054

ggttctggct tctgcccaga tgtgtctggg tgtccctggg ccagggcagg ctgccccacg 88114

gagggacaat gtcaggacag ctgggacctg accctgttct gactccatgc ccggtgggcg 88174

tttccgtgtt cccacagagc tgctttctt atcttgtctt tttaagttca gtgacatgtg 88234

catctgtctt gatggatgga tggatacgtc cagcccgtca tcccacttct aaccaccctc 88294

tctcaatctt ttctgttgcc tcaaagctgg cattgactca tggctcagaa ggccagggca 88354

ggccaggagc tgtcctaaaa ggcccagact ggaaaaagaa aaggcatttc ttggatagat 88414

atctctggcc tggctactgc atacaggcac catttgaagc cgtgaattaa gcctgaggct 88474

cctgccctca tgaagtttac gttctggcca ggaagagagc ctacagatga taaaagcctt 88534

tacagaaaga aaaacatcag attaggttgg ggcagggatg gtcagggtgt cctgtatgag 88594

ggtgctgggg tgcagacagc agtttcagca aggtgatcca agctgtgctc acgggaaggc 88654

agcagtgggg cagaattgga agaataggaa ggagccatgc tggtacccag ggaaagccac 88714

tgcaggccga gagagcaggt cttgggacag caggtggcca ggactttttgg gaaagggcaa 88774

ggagcctggt gtttggaggg gaataagcag gtggagagca gtagatgagg ctggggaagg 88834

ggaggaggta cctttttgctg agttaaaaac acgagacccc gtgcatacaa cagtaaatgt 8889

tttcatcatc ttgcatctgc gattctgtgg tctgggcttg gctgggcttg ccctgctctg 88954

tgggtcagtg gggccctgct ggaggctggg cttggccggg ggttggggg gttcttctgc 89014

acccactctt cctcctcccc ctcaggggcc agtgggccag cctgcgcagg tcctgctcct 89074

ggtaccgcca gaggcgttga tggcaacccc cagtacctaa gccccttttgc atctctgttt 89134

gcggcttgtc gaattgccgt tctgcaggcc aaagcaaaac acagggacaa gcccagaatc 89194

aaggtggggg gcagagaaca ggtcacctgg cccaccatgg gaggggtgaa ggtttggctc 89254

cagatgcggc ccacctgggc ctcggcaggt gggggctgcc tttagaacac tctgtgcttt 89314

tctctgagta cacaatggga gccgctggag ggtttttgagc aggggagtgc caggatcagt 89374

cctgggtgtt accagcctct ctgctgccag tctgttgagg ctacgtcata gccagggaga 89434

aagagctgtg gcagtcatcc agtgagaggt gggagagtgg ctggcatccc gatatgctgt 89494

gaaggctgag caggcaggat tggatgtggg gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt 89554

gtgtgtgtgt gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga 89614

gagaacgaga aactccaagg cttgggcctg agcaagtgaa caatagagct gtcatcacct 89674

gagactgggg aagctgcaga ggatgaggct gaggagggat cagaattcag ttatggtgac 89734

caatgaaggg tttttgaatag agggacacag ggatgcactg gctcaggagt ttggtcatca 89794

· cgttggccgc cagagggaga acagaggctg ggacagggaa ccctgtggag tgtcctctct 89854

gtggctacag ggagcaacgg tcagatctgt ggctggtttg aaagtagatc cattttgcta 89914

aaggtggtat cacagatttt ggagactaca gaatccaggc caggagagca aagaacgaca 89974

gaggtcccat tcacagcagc gggccatccc gggctcctac tagctttttgc tgcttgggcc 90034

tatggggatg gtattctaga actttccatc ttccaagaca tactggaaat gtggattttt 90094

ataggaaatc ttctactttt caaatattaa gaatgacttc aaattaaaag taataatcat 90154

tttggggctg cagtaaaact tgttggtgga gcaggcctca ggcttcaggt tggtgagctg 90214

tcctccagtg ggggtttctc ttccaggcta gggccttgtc ctcccctgct ctcccccact 90274

cccagggctg gccacccaga atgtgcaggc cactcatctc tgtgactcgt agaacctgag 90334

aatgttggtg atggaagggg tgttccccta gttcccacat gcaaaaagtg gggcctggag 90394

atggggctgt ctttttctc caaacacttg cccatccagg aaggccagcc ctgggcattg 90454

aagactccag gtatgggggt gactccataa ggagaggttc ctgagtgacc tgaagaaaca 90514

tggttgggat gaagtgcagg gagggtcagg gcaggcaggg ctgagcttcg cttctgcgag 90574

cagagattag agagcgatcc cagaggcctg cctggaggtg gggccacaga gcaggagtct 90634

gaaggagagg gggtaattca cctctgtcct actgtgtggg aagccctgag tgggcccta 90694

gcagagggtt gccttgcgct tatctatgga gatattggga agggcttccc tgacccaggt 90754

tgctggagca tgggggcctg ggtggcaggg gtaggtgtgg gagattcaag acaggaggat 90814

gaggccacat ccaggtggct tcagatacca ccgtgagtcc catagagtgt ccagttacta 90874

taaagtctgc cagccactgt ggtcgcccca ggcctgtgcc aagtcccgag atctctgccc 90934

tgcagccagt gcagagggaa gaggagggca ggaggggaca ggttggtggc ccctcgccga 90994

tgctcctgac ccctcaggct ccctgctgcc tcctgcccag ggctgtgggg cctcggggag 91054

cggggagctc gccattgctg tggcactgtt gagcacccgg gagaggcggg ttctgacagc 91114

caccccttcc cgtcttgctg ttcccctccc ag ct gac atc atc tct acc gtt   91166
                                           Ala Asp Ile Ile Ser Thr Val
                                               25   30

gag ttc aac cac acg gga gag ctg ctg gcc aca ggt gac aag ggc ggc   91214
Glu Phe Asn His Thr Gly Glu Leu Leu Ala Thr Gly Asp Lys Gly Gly
        35   40   45

cgg gtc gtc atc ttc cag cgg gaa cca gag gtgcgaagcc ctgggtctgg   91264
Arg Val Val Ile Phe Gln Arg Glu Pro Glu
        50   55

tgggaggtgg gaggggtggg gagcagagtc aggtgggagg cgggcatggt gggaggggat 91324

aaggataagg gggataaggg gtgatgcggt gagaggtggg aggggactat actccaaccc 91384

acaagagggc ttttaactga caggaggtgt ggggtgtctt gcctggatca catctcccag 91444

gggcatggat tccaggggtg ggaatgggat gctttggaat gccgaggtgg gagtggcggg 91504

cggtggtagg gggagtgcac tgggtgggct ggcaaagcca ggttctgagc cccctgccct 91564

cagccgatgt ttgcggagag ctgcctgcat cccatgctct gtcctagacc ctggatgaat 91624

ggtcaggatg tggcacaggc agctgctgcc ccagcttgtg ccttcagtga aaccttcctc 91684

tgcctgggtg acctgcgttg tcctggccag actggggagc gggaggactc cactcttgcc 91744

cagctgtcac agccctcaga ctgagctagg tggttttttgc tcaggcctgg gcccttgtcc 91804

tcacccctgt cctcacccccc acccccggggg gcttgttgtc cagcagaact ctgggtaaga 91864

cagcagtggc ctggacaacc tgcccaggac cacgtttctg gaacactgaa agagcctcgg 91924

gacaaaagcc catttactga gaacacttgc taagtattct ggagttgctt ctggtttact 91984

ctgcactgct cacctccgag ggccagatcc acacccctgt gacagatgcg gaaactcaga 92044

gaagccaccc agctagtgaa cagcagacct ggctgcccga cgccaggaca gtggccagca 92104

acgtcacaca ccacccggcc tcagagaggg cgtctccccc cgcaaacacg gactgtgcct 92164

ggaattagat gcagaagaca tccaggaaac caaggaggag ggaggagggg atggagcagg 92224

agaggcaggg gaggggaggg gaggaggaga agagaaggtg gagaagggga ggtaggaggg 92284

aggggaggaa gccggggggtg aagagaggac ctgcggaatc atctttcccc cgattcactc 92344

ctgagcatgg cccacgaact gaggatcctt gagtctgact ttatcttggt ggctcacata 92404

accctcctca cggtgacccct gtgggtgtag tgcagtgcgg ctactcccct cattttacag 92464

aggaggagcc cagagtgcag agggttaaaa tagttgacaa ggggcacatc ctagctgcca 92524

atcagttcct caaacacagc actcggccag cacctgtggg cttcaccaga tgcacctgtg 92584

gggtgtccca ccaggcactg cgaagctcag ccttcttttt gccaagctgc agaaagagat 92644

cggattggtt gatgcgattt tcttcatttt gaatttttct cctttagtgt tttcttcctt 92704

ctagtcccac tgacctttgt catagcgagt gctcatggga agtgaagtga attagaggca 92764

aaaatattgg agaacttcta agcttttcaa aagcaagaca gggatagaaa tatagatact 92824

taaaaaaatt accaggaaat cttgaaattg ttctgggttg aatgtctccg tttctccctg 92884

gttgggggttt cgtgttgtcg tatgagttga actctctcct gggaacgtgg tccctggcgc 92944

acacagtgga ctcaccacct gactatgctg ggagctccac ggtcaagggt ctttattaga 93004

aggagctctg ctgcctaaac caggccaagc actgctgagg aaagccgggg acagattcca 93064

atccaggtct gacattgcca gacattctgt cccaatgtta aagtctgctc ccaaattcat 93124

ttattcctca agtcaggcct gagttggaca cgtggaatcc aggagcaagt cagggcccaa 9318

gacacgaggg tggccagagc ctcaagcctt ggcgtcaggc aggcctcggc agaggggtgc 93244

tcgccggaga gtgacctcac ggctctggga agtcacttcc cctctgagtc tctgtttgct 93304

ggtctgtgaa atggggagag tcgtggtgct caagcagagg aggcctggag ggtagaatgc 93364

gatggtgcgg ggaggactta gtggggtgtc cagcttgtag caggcgctgg ggaacattcg 93424

cattagcaag ttagccggct cgggtgtgag tgtttcatgg gaccgcacgg gagcggggct 93484

tgtccctggc acactgcaag tcatgggccg gttaagctgc agagagtttc atttgaccct 93544

cgaattggat ccctggcacg gctcggcact tggtcccacg gccggccctg ctgggtcccc 93604

ggaggtccta gccgtcgccc tgcaggtcac ggtgctcagg ccccttctcc gggtttccct 93664

gcag agt aaa aat gcg ccc cac agc cag ggc gaa tac gac gtg tac agc 93713
     Ser Lys Asn Ala Pro His Ser Gln Gly Glu Tyr Asp Val Tyr Ser
          60   65   70

act ttc cag agc cac gag ccg gag ttt gac tat ctc aag agc ctg gag   93761
Thr Phe Gln Ser His Glu Pro Glu Phe Asp Tyr Leu Lys Ser Leu Glu
     75   80   85

ata gag gag aag atc aac aag atc aag tgg ctc cca cag cag aac gcc   93809
Ile Glu Glu Lys Ile Asn Lys Ile Lys Trp Leu Pro Gln Gln Asn Ala
     90   95   100

gcc cac tca ctc ctg tcc acc aac g gtgaggcgct gcccggcctc   93854
Ala His Ser Leu Leu Ser Thr Asn
     105   110

gcttgcatgg gcacaggccg tagatgtttc taccaaatgc tggtttgtat ttcacttata 93914

ttgtgagcat ttttctatgt cttcagaacg cctagaaaat aatatccttt ttgagcagca 93974

tataaatccc atgagtgagt atgccagacc ccctcagacg ctccctgtgt ctggacacag 94034

ggctgccccc ctttttgagc agcatgtaaa tcccatgagt gagtatgcca gaccctctca 94094

gaagctcccc atggccagac acagggctgc cccctgctgt gaatagagcc atccgagcca 94154

tctttgtagg cctttgcttt ggggtgaggg agtgtgatgg acaaggatgc aggtcgcaga 94214

cacgggggat atttgacaca aagtgaaccc ctcctcccca cgccgaatcc agacccctag 94274

actggggctg tcaccgcggc cttgcggggc agtgggagga gccttggttt aggaccccgg 94334

ccggcctctt aatcctcttg cctcagggag gagcatgtac ccctcaggca ccggaggctc 9439∠

tcggcctgac gcctgcttcc caggctccac tctgagggag tggctggggc tgtcctgctt 94454

ggctcaccat gggcctgggt cccccactca cgccccctgc ccatcctcct tcacctgggc 94514

cccctgcgga cccaggcagc ctggggtcgg gtaggacaca cctggattct tttttttctt 94574

tttttgagag acaagagtct tgctctgtca cccaggctgg ggtagagtgg cgcgatctct 94634

gctcacggca acctccgcct cccgggttca agcaattttt ctgcctcagc ctcccgagta 94694

gctggaatta caggcgtcca acaccatgcc cagctaattt ttgtattttt tagtagagac 94754

ggggtttcac tacatgttgg ccaggttgat ctcgaactcc tgacctcggg tgatccgcct 94814

gcctcagcct cccaaagtgc tgggattaca ggcatgagcc actgtgccca gccaggacac 94874

acctggattc tgtccctgcc ctgcctccct tgggcagtga ccttgctttc ctgagcccca 94934

gcagggtgga cacatctccc ttctggggtc cgtgaaatgg tgcccactca accccctgag 94994

aacagtaacc gctgcacaag caccagccag gcttcgaggt gctgtcccca cgccttcccc 95054

gaggacgtcc acgctcctca gcggggcctc caaggctctc ccgaacatgg ctaggcgcag 95114

cttctgccag cccgcctgtg cctgaaggct atcctcgccc tgtacctggc caactccctc 95174

ctcatcccat aagccttgct gggtgcccgc cttttctgac ctctccactg agccaggcat 95234

ccctcctgtg acaccctggc tcctcttaac tccggttcac cccctctctg ggcacctgct 95294

gttctgatgg tgttctcccg ccatgcacct caaaggcagg atctgtgtcc cctaaggggc 95354

cctgcccagc aaatctgtca cctgagccag cagagcatga gagatcctcc cgaagggcag 95414

gccctggggg acaggagcct cgtcctgtcc ccatgcacct gctccttttg aaaatattta 95474

agaaggacgt gtcagccaca tgcggtggct catgcctgta atctcagcac tttgggaggc 95534

tgagatggat ggattacttg agcccagaag tttgagacca gcctgggcaa cgtggtgaga 95594

ctctatctct acaaaaaaat aaaatattag ccaggtgtgg tggtgagagc ctgtagtccc 95654

agctactcag gaggctgaga ttgaaggatc atctgagacc ggtaaagtca aggctgtagt 95714

gagctgagat ggtgccactg cactccagcc tgggtgatgt gagtgagacc ctgtctcaaa 95774

agaaaaaaaa aaaaagacat gtcactttct tcctgcctct ctacagaaaa ggtcatcttt 95834

cagcactccc tacactccgc tcccctcaaa gcttcccacc tgggtttgaa tcctggcttc 95894

actctttcct aatggcaggg ccttgggtac ctttcagatg ctccactgac cccagttctc 95954

agttctcttc ccagttcctt ctcatcaaca tggtgctatt tgttttgact cctgtagtag 96014

tcagggttct ccagagaaaa agaatcagta gggtatgaga gtgagaaaga gaaaggggga 96074

tttattttaa ggaagtggct cacctgactg cggaggctgg ccgttccgaa atctgcaggg 96134

aggccgaagg ctggaggcct cgagacagag ctgcagttct ggtccaaagc cgtctgttgg 96194

cagaaccccc tccttcccca ggaggtgcct catgatttca ccttctaaag tggatcttct 96254

cttccatccg gctgcttaat tatgtgactc gctttatttt gttctgtttt taaag at   96311
                                                                      Asp

aaa act atc aaa tta tgg aag att acc gaa cga gat aaa agg ccc gaa   96359
Lys Thr Ile Lys Leu Trp Lys Ile Thr Glu Arg Asp Lys Arg Pro Glu
        115   120   125

gga tac aac ctg aag gat gaa gag ggg aaa ctt aag gac ctg tcc acg   96407
Gly Tyr Asn Leu Lys Asp Glu Glu Gly Lys Leu Lys Asp Leu Ser Thr
     130   135   140

gtg acg tca ctg cag gtgagctccg gtgaggggga agcaggcaca cgcctcttta   96462
Val Thr Ser Leu Gln
145

ttacacctga ggattttagg gctggaaaag cctttgagat ttgagccaga gtcaggtgca 96522

gaccctggtt gggctgctgg ctgctgggcg gccacgggcg tcttcctgcc ccttgcctca 96582

gtttcctcac cagcagcata cagatgacca cgtttcttct aggcttcttg tgagcatgca 96642

ggggtggtgt atggctgtaa agtgcttttc acctatagct gagggtggag agcaaggcag 96702

ataatccctt gttataagaa gggggaaact gaggcccaga gagagacagc aactcaccta 96762

aaactgctca gctgagtgag taggcagagg cagaaagaga atgggtcagc agagctttgt 96822

ggctcctgag tcctttactg agggcagaag gaagcctgga ccgtgtgagg ccttcagcat 96882

ctacaaaggc ctgaaacaga cataccctga aacagacaca cacgtgccca gcatccagtg 96942

agccgccata aatataaagc agtagtcagt gctcttcctg agaagaagaa ataaatgttt 97002

aaatacattg gcctaaatga ctggcaaatt gcacaaataa attctgagga agtgggcagc 97062

cgattagctt cgatgttgag taatgagggt gctggtgccc cctgccccac cccccgtccc 9712:

aagaaagttt atgagggttt catctagagg gaaggataca gcgatcacat cttgatcacc 97182

ctggtgtttg gggcagagcc agtggccttc ataaaaatcc tgtttatgtc cctcccagcg 97242

ttggagattt ttctctgtaa gtcacacaca tcccaagaca cttaactgtc actgagaacc 97302

tgggtgccct ggtctgtcct catcctgcct ctcaccttgt ttgcttccga tttcacccac 97362

gccacgccaa ccctgcacag cattctaccc accctgcgca gttcacactg gaggcagctg 97422

tttactgagg agctgctcca cgctaggccc cgggctagcc cttggggccc tagaggtgag 97482

caaggttcaa ctcagtacct gtccccaaag tgtccccagc ccccaaggaa acagacatgg 97542

aatcgccatc acactggcgc tcagtgcggt gacagaggaa cacagagagg ccgtgggcac 97602

cccaggaggc ctttctctac tttgtcaatt tggtgaactc ccatacatcc cataaaaccc 97662

tactggcctt cacctctgta aagcctttct gcgcaggcca gatgacaatt gtgatctttc 97722

ctgtgtcccc tcttgccttt tggatccgac actgtctgtc cttagtgtct gtatcttcct 97782

tgcccctcat cttgactaga ctgtggcttc tgcggaggca gcatgtttta ctcatgaaac 97842

ccccaaacct tcagggaagg tttcctttct ctcttcttct ctttactaaa aaactggttt 97902

tgagctctgg tttggtggat ggcagcaaat ggctggagca ctggatgaac tgggtcccaa 97962

ggccgcctgg agaaaacaga aagcaatgtt gccggaagga agcaggaggt ggactgagat 98022

gccaagactt tgctgggcca gtgatgctct gcccttctcc agagcagctg ggctccctct 98082

ctctcctgag agtccaggga tccccagggt gggcagtggc tgcaccccga aggaagggaa 98142

ggttagcagc atagctaaaa tatctgacac aggaatacgt gcagggagga tgccttggag 98202

gagtnnnnnc acactaacac caactcccag gcacacaacc tagaagcaaa gacacagagg 98262

caacaatgca agaaccaccc agagccaggc tgtcactcac accggtgctg cgtgcacaca 98322

cacacacaca cacacacaca catgcatgca catacacgta tactcagtca tgcatgcaca 98382

ctcacatgca cactcatatg cacacactca tacatgaact ctcagccatg cacactccca 98442

cacacacagg ctgggtgccc tggtgtgtgg gaaaatttaa cgtgggctgc agagctgcct 98502

ctgctccaaa ggagctcagt gcttgtcact ccgactgcag caccgaggct gtcacctccc 98562

atctcagctg ttccctgaga gctcagggac acagcccatt cattcattct ctcacacatt 98622

cactcattca ctggagagtc tctctgctag gccttggact gagcgctaga gagatggaga 98682

gataaacaag aggtgacgcc ttgctcccgt agctgatccc tagtccactg ggaaagctga 98742

tgggaccagt tgacagcctc agggttggtc agggctgtgc aagggacctt cagggctgtg 98802

aaagctcagt gtctgatgcc atggcaagga ctcctcgcac caactgtctg agatgaaagt 98862

tcgtatgagt caggctaact ccaccgctgt aacaaaacaa caccagcagt ccagggccga 98922

gcacggaaat gcatttctca ctatgggaag gttcgatgtg gatgtgctgg ttgggacaca 98982

gctctcctgc aggatccttc catccccatc ccatgagtct cagtccctaa ggcttgggtc 99042

ctcaccttcc aggtgggggaa ggtgctcccg ctgcttagct gcatcagggc caggtatcac 99102

tttgctcaca tcccattggt cagaactagt catgtggcca tgtctgggca caaaggctgc 99162

tgggaaatgt agtccacatg tagacagctg tttcccagtg acagcactgc attgcaggag 99222

gaggtgagga ggcctggcag acaattggct ggctctgcca cagtatcttt ttgtttcatt 99282

ttagagttga ggaaattggg gtataggagg gttcagccac ttattcacag acccacagca 99342

ggtaagcatc catgcctctc ttgcagggct ggtgggcggc gggcatttgc catctgtcac 99402

tgcctatttc agaccacgga ggatcaggat ggacgcccac ccctgtgttc cagcctccgg 99462

ttgggatcac atgctcacgg catgctatgt cctgatgcca ccrcctggcc ttcacctctt 99522

ccctgcctcc tcatcctctg cag gtg cca gtg ctg aag ccc atg gat ctg atg 99575
                         Val Pro Val Leu Lys Pro Met Asp Leu Met
                          150   155

gtg gag gtg agc cct cgg agg atc ttt gcc aat ggc cac acc tac cac   99623
Val Glu Val Ser Pro Arg Arg Ile Phe Ala Asn Gly His Thr Tyr His
160   165   170   175

atc aac tcc atc tcc gtc aac agt gac tgc gag acc tac atg tcg gcg   99671
Ile Asn Ser Ile Ser Val Asn Ser Asp Cys Glu Thr Tyr Met Ser Ala
      180   185   190

gat gac ctg cgc atc aac ctc tgg cac ctg gcc atc acc gac agg agc   99719
Asp Asp Leu Arg Ile Asn Leu Trp His Leu Ala Ile Thr Asp Arg Ser
      195   200   205

ttc a gtatccttca ctgtggcctn ggccagtgcc tcccacgggc agagtagctt   99773
Phe

ccgttgggtg gtgggtttgg tttgattggc agacagctgg tttggggatg gctgcattgt 99833

ttaacttctt cagtgaggca cctctggctc ctagtatgcg tgtgaggccc agatacaaaa 99893

tcatgtcacg tctgtttctg aaaaccgcaa agtcgtggtt gctgagcatt gcacccatcg 99953

cctcctccag catggccatg atcccctcat cctagggcct cacaaggggc caggaaggag 100013

acagagttca gggttcagct gctctggacg agggactgct ggccttgctc agcgtccact 100073

gaaggcgcct cggggccctc cccactggga cccaaggcag gctgtgttag cataggagga 100133

ccagcactgg ggccccggcc agggcttcgg gtgacaacca gggtgtcaga agcccagctg 100193

ggttggggtc ctgagggccc cctgctcggt gttctcctgt gtcagggcaa gctaggggaa 100253

gcagcagcat tgacgattcc cgccgactgc tgggaagaga gctggtgatg acatgagcac 100313

cagcctgcag gcagggcgag gcttggcctg ccggggcggct ggtgggcggg caggcaggtt 100373

gctgtgatgt cactattctg catacaacca atgataataa taattataat aacacacagt 100433

gagactctgt gtgccaggct ctgtgactaa catcaacaag cattcatttt aactcatttc 100493

accttcacaa caaccctatg aggtaggtac tattctaagt ctcctttaca gatgaggaaa 100553

ctgagtcaca gagcactcaa gttaacttgc tcaaagctca cagccagcaa gtgtcaaagc 100613

tgggcctgaa acccaggccc tcaggcccca gagtccccgc ttctaacctc cataccacac 100673

tgcccttgt ggaggatgcc acccaggtgt gtcttggaag gggtgggaag accctcctga 100733

gagcctccat gcaactggat ggcctcccga ctccaggcag cctgggcacc cagcagtggt 100793

caggagtggg ctgtgtccct cggagcagta gaagccggga tagctgtggg gagcagggga 100853

ggcagggagc attccaggaa gggtgaaaga gagtaacaaa tggcttttgt ggtctgagat 100913

ccaggcacag ccagagaccc ctgggcaggg agacccttgg aaaacagcgg gaagggaaca 100973

gagcaaagcg ttggatgtcc cctgagccag ccagagggtg cggggcacat gtgtgggctt 101033

cggaggcaga aagtctgttt gggtctgact gccaccttca agctttgtga ccctgggtga 101093

gtacactcac ctccctctcc gagactccgt cttttcaatc atgcctcctc atagacctgt 101153

ggggtgccgt cagtgagccc ctatgtgtga tgtgccgaac cctaagtcag cacttggtgg 101213

gtatcaggaa gcatcagcat ctctctccct tctcttgtcc caaaggcatg gagtgcccag 10127:

agctgggagg ctggattggg ccagccagga aggttccagg aaggattggg acctgagctg 101333

ctttgaaggc ttgaagctca gatttctctg gacatagagg gctgggctgg acatctgtct 101393

gaccctccac tgaagccgaa aggacatcgg gccccaccag tccacagtgc tcatagcagc 101453

agttggttag actctttctg ctgcacgagc atgtttgatg tggataactg taagagagct 101513

gcgggccagg tggcttcagg ggctggagca tcgtgggtga tggctctctg ggctgattgc 101573

ctctgctgtc ttctgtgttt caatctcagg tgccagtagt tggggcccca ccctcccaga 101633

ataaagtcca ggagaaacga gaccagttct ctctgaactg tcccactagg accctaaatg 101693

gcatcttgtg ggctctaatt ggggggtgaat gccttgttgt gattggccag gccggactcc 101753

tgtacctctc cctggtgctg gagggagtca gctccgcccc caacccctgg atgtggggga 101813

ggggcggtct cctagcagga gctccaggtc tgcaaatggg gagggtgtgg ggctcactga 101873

gcggcctgga ccgtaccgta cagtttacaa atcagcctgc cgttcgttgt ctcacttggt 101933

gctcagagac agtggtaatt tgatgatcac cccatttcac agatgaggaa acggaggctg 101993

ggggagatga gggactggcc cagagtcccc agttggcagg ggcagagcca gagctcatgc 102053

tcgggcctcc atgcctggtc cagggctttt gccctggcct cggcctgccc cctgcagccc 102113

tgggacagtg gcagccaccc ttctcgagca cctgcttcct tcctgccgga cttgggtggg 102173

gatggtaatt gctgctcggt tttcctgtct gggctgctgt gaggattccg tgacactatg 102233

gatgccgaaa ccctttctaa agaaccataa agccctagag tatggaaggg atgctgcttc 102293

atttcattta ttcaaccatt cattccccac gcctttctac tcccaggccc acactgagcc 102353

ctagggacat ggggatgaat gggagaaact caacccttcc ctggagggct caggggctgc 102413

tggggggacac agccccgcca tggcagtgga agtgagggag tcatccttgc tgtagcccag 102473

ggtctggaca agctgctgtg ggggccgcca aggaagccag agaaggaatt tcggtaggaa 102533

gctccctggg ctcgaggagg ctgcctgagg gcatgggtgt gcaggaggcg gatgcatgag 102593

gaggcagaag gtgccggagc tgtggcactg tggatggtgc aggcaggggg ctttctcttg 102653

gggtaggggc cccgaatgcc agtcattcac aaaaccccccc acagctgtgc ctgcctccac 102713

atgccacgtg tgcttccctt tacttttccc atttaaaaaa aattgttttc tttaagtcaa 102773

gttgctttat ttttgccgaa gtaattttct tttgaaaggg aattgaattt caccatgata 102833

agttaaagta tcacatacca taaataggag gtagcctcaa ccataacggc tgtgcacaca 102893

aaatggtggg aataaaatac aggctcagcc ctgtctgttg gaactttctg tggtagtaga 102953

ctgcttcgtc tgcactcatg gggcggcagc caccagcccc atgtgcctgc tgagtgccta 103013

aaacgtggct tggtgactga ggagcgacat cgttaatttg atttagttcc agttaatcat 103073

acttcaaacg aaatagccac atgtggccag tggctactga acaaggacgc tgcagcctct 103133

ctccaggttg cccttagacc ctgaagctgg ttctctctga aaagatggag gtaaacatgt 103193

gcttcaatgt taaggggag agtgcaaaac agagacatcc cccttcattc atcagaagga 103253

ttgaatcctg tctccccgtc tgcatctata ttacattact ggaggctgtg ccgacttccc 103313

acctgcctgc ttccagggaa cgggaaacta tgaagctatt gatgtactgt aaacaggggc 103373

gtgtcactag ccagctttgg aggtgtgtat gtcgtgggtg tgtgtcgtgg gtggattgga 103433

ttccagcaga caaggctggc ggcttgggaa ccagcaagga gacccgggga gagagagtga 103493

gaggcagggc cagagcgtgg ccacgggtgg gaggcggtgg aggaatgaga ttgtaaggat 103553

ggaggtgtca tagatttgga ttgtatcata accagttttg gatcggggtg gccacaagac 103613

attcagacag gttggctgta aagaagaaaa ggggggttggt tcatcccagg actgcaaagt 103673

cctccctggc cgttaccgtg agccttgcct cctgtcccgt cccgaacaca cagattgtgc 103733

cctgtccgca tgttgcagag cacaccattt accagcaggt atttattaag cacctactgt 103793

gtgccagccc tcttgggtga tgctggaact agataaagat tctgcctcca ggagtggaca 103853

cgtgataaac cattggtaaa atacccggca ttggagcagg tggtccgtgg gtgctacagg 103913

gagtcggtgg cccagccagc gcagccgtgt acatttctct ccagccacgc ctgctgctgg 103973

ctgcaggcct caggtcggtg gagggtaagc caggggtgtg gttttttgcca agtgaggatg 104033

tagacacgga gctgatggtg tgtgcaagag agtgaaaata atgattattg accaaagaat 104093

ctgagccagg tgagggacag tgacaaggga ggagtgtcag cagatcgggg gcccctgtgg 104153

atcctgggaa catccctggc cgcacaccct gccgtgtaac tcagtgtcag atctctgtgt 104213

aacttcccat tctgtgaaaa tgattattaa ttcatcaaaa cataaagcac cctggcctta 104273

gtgatagagg agtgtgtgtc tatagcatga acaagattct gagctgggct tgaggcagcc 104333

ctgatagggc aacttaggca tttggcagga gttgagtgga gtctccaggg gcacatggtg 104393

gccatggaaa cctccccgat tggatctatt cattgggga cctcagtgca cctggtgctc 104453

cccatggcct gttgccgctt ggctccccat ggggtgctgc tgcagtgaca agacacagat 104513

ccagggctca caccacagag agaagcctta cttggcagag aaagtgtgag gactgtgggc 104573

tgcaggtgct gcgatgagga ctgatagcag ccgagtaatg agaggaggcg tttcatttct 104633

gacatgggag gaggccagaa aggcagctga gaccccatgc ggagctggga attgctctga 104693

atgtttgaga taccttctaa gcaagtctca gtggggtgga ttctggctgt cagagggtga 104753

cagttctgat gagtcctgac aagaaaaacc cagggtcagg aggcctgtgt ccgcgcagag 104813

ccaggggaag gcttgggctg gacttggggt ttgcatcctt ctgacccctg ctctctgggg 104873

tcctcactcg gcccgatgac actgttcagt cctccgtgcc cactggaggt tttccaccat 104933

gtcgcatctc ctaagtccaa tcactaacac ttcccgtctc agcaaaatgg acttttagta 104993

accatatcaa gagaaaggaa aatgtttctt agtaaaggag aaaaagaggg cattgctttg 105053

actattggac aatgagaaag gtgactcaga ggacatctct gctggaggga gggagcctgg 105113

tgatactgag gctctgtgac ctgtctcggt gtagtcacca aggttcaagg aagaggagcc 105173

ctcccagcct cctccctctc tctcaccctc agaatggaaa gaggtgccca gccctctcta 105233

ctctccccag acacttgcct gaatcccgcc ctgtcctgcc cagagccttc tgcacagctg 105293

tgaaattggc tcatcggaac ctctggtctg accatgtcag ccccccttaa aactctcacg 105353

ggttcccctc tggcttctgg aggaagcctg agccctcca cagtgccctg tgcctttggt 105413

gaccagcccc tgcccacctc tcgggtcaca ctggctcact ccttcagctg ctgggtccct 105473

ggcatggggc agggtggggt ggagcactgc catccgccat cccttctcct gaccatgcca 105533

tctgcctctt tggcctggct gactcctgtt tgcccacttg cagcatctca cagcccatta 105593

tctgggacag cctctgacct gtccctgcca caccctcct aggctggtca gagcccctct 105653

aagcctgcgg ctccttggct gcccccggtc acactgagtg ttttgttact gtgacagcct 105713

cctccatttt atggtggaag ccctgagatt aggaacccag ggtgaggcct ctctgcatcc 105773

cctgctccac ataggacttg gcgataggag gtacttatga acggttgtag gtggagtggg 105833

ctggaagttc accacttcca tgtggtctta ggatacagac acctccttt tgatctgggc 105893

gcctggggaa tcagagaccc cagaccctaa agtgcaggag aaggagcccg ggctttgggc 105953

cctggcgggc ctgggctgag acccattgct cagcctgctg ggccatcagc ttccctgaat 106013

ataaaatcag aaaattccct tttataagga tatttgtaag gaataaagaa atctttcaca 106073

taaagagcct ggtgcctaat tggagcccag caagaggatg gtttattttg tctcttaaac 106133

aacagccctt caaacattta agattggttc tcataaaatc cctgcatctc tgatggttaa 106193

aactccgttt tccacggtgc agtttcaacg tctgtttaag caacctctcg cgtcctttaa 106253

taccaacatt ttgagactgt taacacagca ctgggtgatt tttcttgagt ctgatgcatc 106313

ttaaaggtaa caaattgcac aggaggtctc agcggatgga cctctgcttt atttttagca 106373

cccagagaat ttaaaagacg gttcgattga tttttctctc ccttagtgat ttctcacggt 106433

gggaactggc atcacaccaa gcctcggcct ggagaatttc taattcccat ttacagagca 106493

ggtccgcacg gccaggtggg ctggaggggg gtgcagccat tcaccgcagg aggctcagaa 106553

ccttcatcag cccatgcctg cctgaagact cagcttgtct tctgtgcaga gaacaaagga 106613

gggagcagac acagtccctc tgcatgcaga ctctgtgctg ggccaaggga ccctgagccc 106673

aggctctacc cctgcctctg ccactgaccc tgatcagtca ctcagtcttt ctgcacccc 106733

tttatcccat gggagtgtgt ctcctttacc aggagctgta aaggtggaat ggccgatgag 106793

tatggggcct ggtgccgtgt agacaagcaa ccctcaccag cacatgaccc actgtcgggt 106853

accttacagg ccacctcttc ttcctgccct tggtgctaat ttacagagaa ggaaactggg 106913

atgccctgct cagaaatgct ctgttcacgg catgtcagat acataccact gatggctggg 106973

agtctggacc cctgggttct tactccagct ctgccactac ctgcccacgg ttctgtgcat 107033

tcattggttg attcagcagc attggccgag agtcttctct gtgttgagca ttggacttgg 107093

tgctagggaa gcagacaggg tctctgccag ggcctgcgag tacagttgta tgggttgtct 107153

gctgcccaaa agaggtgatg atccaagcca agcaccttgg gaagaaggga cttttttgtt 107213

tttcagttct gcaaggaaga gctgtctttt cataattggc acaaaggcac tttctgagtg 107273

aatggggatc ctgatgctat ccaggtgaac tttctaggtg agcaaaaaga tagtcttctt 107333

cttgctcaag cctcgatgag tcctgtgatc ccatcgtcca aatgcaccca gagcccacct 107393

gcctgtctgc ccccagcatg tgtttaggcc actgtctcac tctgatcatg atggtgacct 107453

gactggcctc ccttcttagg tctaggagcc agactgccag ggctcagacc ttggccccaa 107513

gacataggga ctccgcggcc tcgggcagct cacttgggtt ctctgtgcct cagctcctca 107573

cctgtaaagc gaggaaaagc ccctgctgac accatacggc tgcttgagga ctgggtgcta 107633

cgatgacatc tgggaagcct ttagggcagt gcctggcaaa tcaccgagct gcagcatcat 107693

tgcttcatta gctgtgtttc cccaggtgtc tccttacagt ctgttctcct acaacatgag 107753

aaaaaaaaaa acgacaagat catgtcactc cttgctcaga acccttcagc aacttctccc 107813

aactggaagt aactccgccc ctttctctgg cctccaaggc cctgcaggag ctggccctgg 107873

cccctccctg gcccacttcc tcctctctcc ctttgctccc tgggctcagc gttcccggcc 107933

ccctgctctt caccatattt ccagccatct cctgcagcag agccattttg cactggctgt 107993

tccctccgcc tgtgaagttt ctccatcctc atccactcag tggacacctt cttaaagagg 108053

cnttccttga ccagtctgtc ggaactagtc catcccctcc atgactccct cgagcccctt 108113

ccctagaggc ttggcctcta cctcgttccc tgttcatttc ccgcctctcc ctcctggact 108173

ggcagcttct tgagagcagg gaccttgttt gatctacctg gaataatgcc tggtccagag 108233

tagatgctca aataatggaa ctagtgtaat acagtgagat gggtgttagg ataaggtggg 108293

gaggaccccg gcctccttag aaagtccttg atggaaaggc attgacactg aggcttctgt 108353

tctggacctg ccacgtggtc ccctggcagt ttgcttcacc ttcctggaca ccagtttccc 108413

cttctcttgg ctggactggt gtcctgaaac tggctttcat ttagacagtt gggctatcct 108473

tgccgggtct cccttgatct ggctatgtgt gaccttgtgt cttgccagct gctagcatga 108533

cacaaggtca cacacagctt gtaacagcca ggtgtgcaca tctcttccca aatccatgtt 108593

catggacatc tctttggcag cttgaatttg gccatggtgg tagtatttct ttctttttct 108653

tttctttttt tttttgagat ggagactcac tgtgtcgccc aggctgaagt gcagtggctc 108713

aatctcggct cactgcaatc tctgcctccc aggttcacgc cattctcctg cctcagcctc 108773

ctgagtagct ggggctacag gtgcccgcca ccacgcccgg ctaatttttt gtatttttta 108833

gtagagacgg ggtttcaccg tgttagccag gatggtctcg atctcctgac ctcgtgatcc 108893

acctgccttg acctcccaaa gtgctgggtt tacaggcgtt agccaccgca cctggcctgg 108953

tggtagtatt tctacagata tctacaaaca ctacaaaatc aatctctccc ctccccagaa 109013

gagagggtat tgttcaagtt accagcacac aactgctctg gggccttcac aaggccaggc 109073

agttggtcag tcagcctcca ncatgactga gggcttcctg cgtgccatgg cnctgtccat 109133

ggtgctgacc ccgttgtgag ccattgcgtc gaggtcagca tctccacctc ccaccccact 109193

gtcactactt gctgtgtcac acggtgttct gagcacgctg ccgatgttaa ctggttgaat 109253

cctcccaaca acactatgtg gtaggcgtta ttaatatccc cctttttacag atgaggaaac 109313

aaagccacag taagtttcag taatctaccc aaagtcaaag gggaaagggg gtgcagggga 109373

aagggggtgc cagggctggg attcagattt aagctgtctg gatgcagaac catgcactta 109433

actgtcatgc tacaccgcct ctcagtcatg atggtaacaa ccccagttgc agcctgcctg 109493

gtgctggggt gaacaaatgc aagatgccgc tgttgcattt cagtctcatg accactcgcc 109553

aggtgggggc tgtcactgtc ccaactcagc agaagtggag atgggcactg agaggtgggc 109613

tcccttgccc aaggcccctc tgagccaagt gtccttctga tggcctgccy agctttgttg 109673

agacagccgt atttcttggt tcttgcttta ggtcctgtgg aaagacaggc ccaattgcag 109733

gatagatggg aggttgtttt gctatgagca tggctgtcag tagctgtatg gcagtcctca 109793

cgtttgccct gcaggtggca tggtagaggt gtgcgaccct ggcctgcctc ctgtcccttc 109853

ttgacagacc tccctggcat ttctagaact cgctccctgt taaaatcctc ttgaccccag 109913

gcctgagccc cagacctttg gcctgcttcc ctcttcagga tgggtcctgc cactcccagc 109973

cttatgtcag gacccctcca ccctcatagc tcatactcca tcacctgga gcctctccct 110033

ccctcttaga actcctctcc ttttggacag agcctatgct ccctctgagt tctgctggcg 110093

ccgcatcctc tccagcctgg ctctcaccct ctctgcctcc ctccctcatg ctcagccacc 110153

cagcctctca cacctctgag ccttgcactc cccctcttca acccctcac cccctccaac 110213

acacacacac cccaaacatt ttcccacccga ctagctctgc cgggataatt cctactcacc 11027.

atgggcttcg gagggcccctt ccctgactct gcaccatctc agggcctcgt tataaatctc 110333

tgacatgagc acctgtgtct ctcttaggcc atcgatcgat catggagcta aatctgcttc 110393

cctgccaggc tgggagcccc agcagtcagg gcggggtctg gtctgctcct tctcagtgct 110453

gtgggggtac agctgcctgg gtgcacatcc cagctctgtc caaccttgga ttccccctct 110513

cagttcttgg aaaccaaggc atgccattca ccacagaccc tcctagtcct cccaggggggt 110573

gacaagcact gtaccttttg catcctgctt agctgtatgc tttttttccca gagggagaga 110633

aagactctgg gagttctaat ttaactaaat tcaatttaac tgtagccatg tgctgggtct 110693

tttgacatat gtcatctggt gaaatcctca ttacagccct gcaaagcaga agttatcaac 110753

ccattctaca gataagaaaa gcagagcaca gaaaggctga gttttcaaga gatcacacag 110813

atgttaggca gtggggctgg actttcaagc tctgggtttt gtgattcaga agtcaggact 110873

ttcttccttt ttcatagctt ggttgattcc tttctaagca cttatgaatc acctgaggtg 110933

ggctatggca gagctgtgaa gatggactca ccacacagag agcgtgcagg gctcagtggc 110993

ttgtgcagtg agcggtgaaa tagaacagca cctttcctac ggttccagca agctgggttc 111053

tgctccctga gaggaattgc ataatcatta aggtgttccg agtggagaag gaaaggaggc 111113

tgttacaggc tagattgtgt ctcctccatc cccattcata tgttgaaacc ctaactccca 111173

gaacctcaga atgagactat atttggagac agggccttaa aggggtaatt aagttaaaat 111233

aaggctggca gggtagaccc taatccaatc tgactggtgt tcttataaga agaggtgatt 111293

agaacccaca gagagatgtt aagatgcagg aataagaatg tgaggacaca aggagaaggc 111353

agtcaccttc aagccgagga gacgggcctc agaaggagcc agccctgcta acaccgtgtt 111413

attggacttc ggacctccat agctatgaga aacacatact gtttaagcca ctcggtctgt 111473

agcattttgc tatggcagcc aggaatcctc ctgtaggatc tgacatgcct tggtctgagt 111533

gcttgcagct catgtttgta gtcaggtcat ctttttggaga tttgctgaaa aagcagtttt 111593

tcaagatgaa ctccatgtgt gggaggcctt ctagggcacc tccgcatccg gcgtccctgg 111653

tgagctcatg cgtgagtcct tttgtggctc ttggcagggc tgcctccatc cctaactccg 111713

gtggctgctt ggttgccatg gcgacagctt cctccatcct gagagcaggc tcctgccgag 1117'

acatctggat gagcctcact gtgctcggtg aaatcggtgg agcccaaggc tgcagccctc 111833

tttctcatgg atccctgctc tgcacccagc atcccccttg ctgaggacac aagccagtcc 111893

agccagcctg gcatcagggt ccttggggtg cccaccccat ggggaaagct gcagatggtg 111953

tggaaatgcg tttactccag aacagtggga ggaacgctga ctggaagtta gggagccagg 112013

atttcagtcc ttactctgcc agggctctgc atgtggccct gggcaaatca ctgcccaccc 112073

tgggcctccc tctcctcctg ggtggggttg gcacatgggc agttcctgcc tgcaggggtg 112133

gactatttga ctggtctgtg ctaggcatgg ctctctgggg ttattaccat gtctcaaagt 112193

tcaattactt gctgtggttt ttagattagc ttgtcgtggg atctccactg gggcccatca 112253

tgaggtgaac cagtatttgc acactgcttt tggcgtttgt ggagtgcttt gcatacttgc 112313

ttctctcttg agctccttgc cagaaccaac cagtgatgct tcttcatttc acatacctgg 112373

ctatatttcc agtcagcaga gatttgccct gtagaggagc gagcagccct tggttcctgt 112433

gcccacctta caggagagga cgaccggggg gcagactggt gcagcttagc tgccatggct 112493

cctggaggtg cagccacctc ctccagcctc acgtggggct ggtgtggctg agctcgcgtg 112553

gctgggctcc aggagagcag gctgtgcctc tggtagcagg agatgaagga gtttcttttt 112613

ttttttttta caggtgaaat aaatttttaat gataaaatta ttttagtaat aaaaatctta 112673

ataataaaat gtatttaact aaatataccc gaaatattat catttcaaca ttggcactag 112733

ctacatttca agtgcttttt ttgttatttta agttctaggg tacatgtgca caatgtgcat 112793

gtttgttaca taggtataca tgtgccatgt tggtgtgctg cacccatcaa ctcgtcattt 112853

acattaggta tttctcctaa tgctatccct cctccattcc cccactccat gacaggtcct 112913

ggtgtgtgat gttccccgcc ctgtgtccga gtgttctcat tgttcacttc ccacctatga 112973

gtgagaacat gtggagtttg attttctgtc cttggaatag tttgctcaga attatggttt 113033

ccagcttcat ccatgtccct acaaaggaca tgaactcatc cttttttatg gctgcatagt 113093

attcaatggt gtatatgtgc cacattttct taatccagtc tatcattgat ggacatttgg 113153

gttggttcca agtctttgct attgtgaata gcgccgcaat aaacatacat gtgcatgtgt 113213

ctttatagta gcatgattta taatcctttg ggtatatacc cagtaatggg attgctgggt 113273

caaatggtat ttctagttct agatccttga ggaatcacca cactgttttc cacaatggtt 113333

gaactagttt atagtcccac caacagtgta aaagcgttcc tatttctcca catcctctcc 113393

agcacctgtt gtttcctgac tttttaatga tcgccattgt agctggtttg agatggtatc 113453

tcattgtggt tttgatttgc atttctctga tgaccagtga tgatagcatc ttttcatgtg 113513

tctgttggct gcataaatgt cttcttttga aaagtatctc ttcatatcct ttgcccactt 113573

tttgatggtg ttgtttgatt ttttttttgt aaatttgttt aagttctttg tagattctgg 113633

atattagccc tttctcagat gagtagattg caaaaatttt ctcccattcc gtaggttgcc 113693

tgtttgctct gatggccatt tttttttttt ttttgctgtg cagaagctct ttagtttaat 113753

tagatcccat ttgtctattt tggctttgt tgccattgct tttggtgttt tagtcatgaa 113813

gtccttgccc atgcctatgt cctgaatggt attgtctgga ttttttttcta tggttttct 113873

ggttttaggt ctaacattta agtctttact ccatcttgaa ttaatttttg tataaggtgt 113933

aagggaggga tccagtttca gctttctaca tatggctagc tggttttccc agcaccattt 113993

attaaatagg gaatcctttc cccatttctt gtttttgtca ggtttgtcaa agatcagatg 114053

gttgtagata tgtggtgtta tttctgaggc ctctgttctg ttccattggt ctatatctct 114113

gttttggtac cagtaccatg ctgttttggt tactgtagct ttgtagcata gtttgaagtc 114173

aggtagcgtg atgcctccag ctttgttctt ttgcttagga ttgtcttggg aatgcgggct 114233

cttttttggt tccatatgaa ttttaaagta gtttttttcca gttctgtgaa gaaagtcatt 114293

agtagcttga tggggagatg aaggagtttc tataaaaacc tctgcatgcc cgaggactat 114353

acgggaggcc tgtgtggatc acacctcctg tgtcctcgga agggatggct gcagacttca 114413

ctcttgggtg gaagaaaccc cgctttgctg actcccccag gtgcaggttc tgagctcaca 114473

ggggtggtct gaacagctgg gggcacccag cacccctacc cccacccacc agggtgagga 114533

gctccttgta ctgtggatgg gggaccggga taggcccacc tgtccctcca gggctgcact 114593

tgctccatct gacattgaac ctgggcctgt gtgcagtaaa gaagggaggc tgtgtgaccc 114653

aagcaagact gcatcgcctc ctgtaggcct ggggctgtgg gcggcagggc aaatccactg 114713

tgcgtggggc tttctgtgca catagccatc ctttgtttag ctagcacctc tggctggttt 114773

tctgttacaa cagcagagtt gagtccttgc agtttcgata gaaatcctac gtctggctag 114833

gcctgaaata ttgactctct gactctttgc agaaaacact tgccaacacc tgtgaatgtt 114893

ggcactggaa ggaaaagggg gtccatttca agacatgggg ggctgaagcc agacaactgc 114953

caggtccccg ggcccctcca gggacctgac agcccctcct tgcccagcac ctcgctgtcc 115013

ctgtctcatg cccatgactg cagctgtgac tttctcctcc tgctccctga gcctcagatg 115073

acacagagtc cagagaggct gagactgacc cgaggtgcca cagcagatga aaggggggatt 115133

tgaggctggg acccagggtc ccacctgaca gcctttccct gcccagcacc tcgctgtccc 115193

tgtctcatgc ccatgactgc agctgtgact ttctcctcct gctccctgag cctcagaaga 115253

cacagagtcc agagaggctg agactggccc gaggtgccac agcagatgaa aggggggattt 115313

gaggctggga cccagggtcc cacctgacag cccctccctg cccagcacct cactgtccct 115373

gtctcatgcc ggtggctgca gctgtgactt tctcctcctg ctccctgagc ctcagatgac 115433

gcagagtcca gagaggctga gaggctagcc cgaggctcca cagcagatga aaggtggatt 115493

tgaggctgga acccagggtc cctggcagcc aggcagaaca ggccgcagac cttctcagca 115553

gctcacctac agagcgccca ctctgagcct ggtcctgttc tcagcgcttc acgtggacta 115613

ccttaccccca tcctcatctg ggagctgcag agtgcaattg cccttctgaa gttggggaaa 115673

ccgaggcaca gagaggttca gaaacttgcc caaagacaca tagctagcaa gcggcagagc 115733

tggagccacc cccagatggt caggggggcaa ggattgcact ctggagccac ggagggcgta 115793

tggaagactc tggagcccaa ctgagtccca ggcctggtct gacccttctc tccttgtccc 115853

tgagcaattg gcttctcctc gccgagcctc tgtttccaat gtagaagggg cacacctcac 115913

tcatggaagg cagaggggat tggatgagct acagatgcga agctagtccc acccagccag 115973

ccggccgcac gtgttagctg cgacaggtac taggtgcttg gctggggttt gggggatata 116033

aacagtagaa caactttgcc tagtcaggtg aatgacacaa gcaggtcagc cagtatttgc 116093

aacctaaaaa gatctcgctc atgggccttg gagcaggtgc agtggagacc agaggaagca 116153

gtgtaggaac aagttcttcc tgatggactt cactggaccc gcagcacgtg tgacgtgctt 116213

cccagaccac agtgctcttt tttttttttt tttttttttc caggcagagt ctcactctgt 116273

cacccaggcc ggaatacgtg gcacgatctc agctcactgc aacctctgcc tcccaggttc 116333

aagtgattct cctgcctcag cctcctgagt agctgggatt acaggtgccc actaccacgc 116393

ccagctaatt ttttttgtat ttttagtaga gtcagggttt catcatgttg gctaggctgg 116453

tctcaaactc ctgacctcaa gtgatcctcc tgcctcagcc tcccaaagtg ctgggattac 116513

aggcgtgaac caccatgccc ggccagcaca gcactcttgc gtttgtaccg cagcagcaat 116573

actttcaaca cgctgcaggg ggacggctcc tttgaatggc ctttgtcagt gacgatccac 116633

tcctaaaaaa cccctcacac cctggggcct ccttgaccat gcctcttttt ttttttttt 116693

tgtgctttct gtggctttct tttttctttt ttttattata ctttaagttt tagggtacat 116753

gtgcacattg tacaggttag ttacatatgt atacatgtgc catgctggtg tgctgcaccc 116813

actaactcgt catctagcat taggtctatc tcccaatgct atccctcccc gggagttgaa 116873

caatgagatc acatggacac aggaaggggg atatcacact ctggggactg ttgtgaccat 116933

gcctcttatc tcaactttaa cagctgcttc cccttgagat ggtttgcaac ctcctgcccc 116993

ctgagccctg atcagagggg accacaatgg gctgattcat tcattcagtc agcaactact 117053

tactaaacac ctactgtgtg ccaggcactg aaggtgcagc agcaatcctg acaggcaggt 117113

ccctgccctc gctggggaca gatagcaaca aacaggccaa taatgtaata agcagtgatt 117173

aatgcttgca aaaagagaaa gcagaaaatc tataattaaa caaggtaaaa taaatgttta 117233

ttttgagggg cagaggagat ttacaggagg ttactttgtt aaggagcatt gaggcaggga 117293

tctgaagggc atgagtgtga gggccctgca gtgggaatgt gcccaacacg acctgggttg 117353

attggacacc tcctccgtgc gcacaacctg cagcttcttc taaggggcaa tggggcctgg 117413

ctgtgggggg ctgtgggcgg aggaacccaa gctggattcg caatcaygca cccgggctca 117473

ggtatcagct ctgctgctca ctgactgtgg aaccctctga gcctgtctct ggacctaagg 117533

aaagcaaagt ggagcaccag ctgccttctg caccctgtta gtgtgtgttg gggtgggggt 117593

ggggggcaaa tgaccgtgaa cagagtttct aaattggaag ggctgttccc agggaaaggt 117653

tcagagtcgt ctccccatct aatatttgcc cacggatcag tcatgcagcg aacatgtccc 117713

aggcaccagc tctgggcagg tcgtgtgtga ggggtgtggg ggcacggagg tgaatcagga 11

ggtggagctg gccctggagc cgactgcagg gcgggacaga tggtcacata cacagcacaa 117833

tggtcctgag gatgagcaga cgggtaaggc cttgccttgg tgttcaggca gagactagga 117893

atgctccggc aacttcgaac tgctggatat ggctggcggg tatggaggga gaagcggcca 117953

aggtgagact gaggaagagc aggcaggggc agcacgctgg gcaagtccga cctcctcggt 118013

ggggtgggag aggccaacac gcagggtggt ggggagtccc gcagctgttt gaggaagttc 118073

actctagctg agcttgggca cggaccccca tggggacaga gatgctgatg gcctgggctg 118133

aggggcatag cgcaaggggt tcagatggag gaaccccagg acctgaaggc tggctggaca 118193

agggaagggc ttataatgag gaataagccc cctgatgcct ggcttggtgc cccaaggctg 118253

gggatgagga aatgggagtt ctagagaagg agcggtgtgg gggctgttgg tgtgggggc 118313

tgtcggtgtg gggggggctgt cggtgttggg ggctgtcggt gttggggggct gtcggtgtgg 118373

gggggctgtc ggtgtggggc ggctgtcggt gttgggggct gtcggtgttg ggggctctcg 118433

gcgtggaggc gctgttgtct taacgccctt tcgttctaac cgcccttctg ttttcaccgc 118493

cctgggctct aacaccccta tctctccaac cccctctgga tcccccccc cactcttttc 118553

ctcgccccc taggcaacgc cttcttaatg tgcccaaagc ccccggcccc cctgcttggt 118613

tccccacctc tttttatgag tcatatctta ttctcttctc tccaaccctc tctttctttt 118673

ttttctctgc ctccctccct cctcctccct cctactcctc tctcttcttc tctctccttt 118733

tctcttttcc tttcttttcc ctcttttcct ttctttctta ctcctctctt tcccctctcc 118793

ctcctttttt ttcccttccc ctttctccct ctatctcttt tttttccttc tttctttttc 118853

tcttccctct tcctttcttc ttcttttttct ccttttttccc ctctttnttt ctatctcttt 118913

ctctctctct tattatttct ttctctcctt cctcctccct ttctttcttt cctccatctc 118973

tccttctcct atccctctct ctcttctcca tcttcttctc attcttggct nnnnnnnnnn 119033

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 119093

nnnnnnnnnn nnnnnnnnna cnnnnnnncn ggcgtaggtg gtagatagtt cttaggtcag 119153

tcgcatgtac tagcggtggt gtctagctgg tcgtggttgt gtcggaggga ggcgtcgtag 119213

atagtgttat gtatacgagg tcgaggtcgt cggtgctggt aggtgcgatg ttcgtgctcg 11927.

ttgtgctagg gatcaagatg tattagtggt ctactggtgg gcggtagtac tagaggtgtc 119333

gcacggatgt gggttcgtgg tggatttgtg agaatgagac tggtgtgtgg cgggagttgg 119393

ttaagttgtg gggtgtgtaa tggataaggc gtctggctgt aggagtttgt gtgtcggttg 119453

cgtgggggcg tgtctggttg agggggcggg ctgtgcgtgt gtcaggggta gctgtggttt 119513

gtgtgggggt cagttctgtg tggggtgggt tgtcttgttt tgtgggtgat ctgtgcggta 119573

atagggggtg tgttgggttt tggtggactg ttggagtgga ggggcgtggt tggtgtgtgt 119633

ggggggcttga gtgtatgggg gggcgtttgc tgttgggggat ctgtcggttt gtgggactgt 119693

tgatgctgtg gagtgtacgg tgtgttggtg cacttggtgt tgggggggtg cctgtatggg 119753

ggggttgttg ggtttttggg gtctgatgcg tgttggggggc tgttggtgtg gggggtcggt 119813

cggtgtgaag ggctgtcagt ttggggggtc tgtcggtgtg gggcggctgt cggtttgggg 119873

gggccgtcgg tgtgggggggc tgtcactgtg ggggggctgt tggtgtgtgg ggctgtcggt 119933

gtgggggggct gtcggtgtgg ggggttgttg gtgtggggggg gctgttgggt gttgggggct 119993

gtcgggtgtt gggggctgtt ggtgtggggg ggctgtcggt gtggagggct gtcggtgtgg 120053

gggggctgtc agtgtggggg ctgttggttg gggggctgtc agtgttgggg ggctgtcggt 120113

gttggggtgc tgtcagtatg ggaaggctgt tgggtgttgg gggctgtcgg tgtggggggga 120173

ctgtcggtgt gggggggctg tcggtggctg cccatagcac tggcattgcg tctgctctta 120233

tttcccaact cccaggaagc accttgggtg ggttagtgtc ctgtggctgc tgtggcaaat 120293

tgccataacc ttcatggctt caaaatacag atatattctc accgtcctgg gggccacaag 120353

ttctcaatcc aggtgttggc agggccgtgc tctctctgaa ggttctaggg gaggaggctt 120413

ccttgtctcc tccagctccg gggctccaga tgttcctgta gccatcgctc ccatctctgc 120473

ctttgtctcc acatggcctt ctcctctggt gtctcctctt ctgtctctta gaatgtcact 120533

tgtcattgca tttagggccc acctgggtaa tccagggtga tctcatctca agatctttaa 120593

ctacatctgc aaagacccctt ttcccaaatg agatcacact ccacagtctc tggggatcag 120653

gatgttatgg acacatgcta tgctgatgta tttgtggggg ccattattca acccactgca 120713

gtggagaaaa atagtctgtg ctcagttgag gcatatggga ttgaagagcg attttacctt 120773

ctctcctttt catcctctct gcataacttg ctcctctctc tggaattcct acctgtgtct 120833

gacaaacttt tcttgcaggg aaaatgactc ttagatgcta gagtgtgatt ggaagggaaa 120893

caaatcccac cagacagttg gagtggaatt agatgggaaa acagaagatg aataattcaa 120953

gcagctttgc caggggaaag gggactctta aatgagccta attatgcttg ttcccaaggg 121013

aggccagtcc tgaaatgaac cttgtgaagc agtttttcaa gcaggattta ggcgggtatc 121073

atgaagctgg ggtggggcca cctgcggtta gtcctggaaa ggaaagggcc caggccctca 121133

ttttgcagat ggggaaagca aggcttgcag aatggaaatg atgttccagt aacagccaag 121193

accagacgcc cagccggggg ccccgagtga cagccaagac cagacgccca gccgggggcc 121253

ctcagcttct gacctggtgc tggtcctgcc taagttaaag ccaccgagtg tggtcactgg 121313

gccaaatgct tcaaagtcta cacacggggg agggcatggt gtggggcaga aagctgtgtt 121373

cacggtagct gagtttgggc ataattctcg tgctccggag gcttctccca cagctacttc 121433

ccttgtcagg agtccatctt cagggccctg tgttatgatg gattgaggga gcaccaacag 121493

gggccacccc acttggtaat taattccttt tgtaaagggc tgggctgcag gcccgggtag 121553

gtcctatggc cacctgagcc aaggtcttgg agaggcggtc gcacggacca ggtgaccatg 121613

gacccagccc ggtgcccaca ccgtgaaggg tgctgtgctg cccagaggtt ctgggcacgg 121673

ctctgggccc tgggattcag aggctcggga ctgcttgcct ccccacggag atcttaccgt 121733

ggggaccctg ttgtggaggg cctgccgcat tggccgtgac agtgattttt ctccttctgc 121793

agggtgatgt ggatgcaggg cctctgtgtc tcacatggtt gtttcacagc agccaccgta 121853

tccgaagaca gagagaaaga gcaggagaga ttccctgtg atggctcccc catgggtcct 121913

gacccaggtt tgggagactt tatctcccca aagccaggcc ctcgatccct ttgcctttgg 121973

ggactctgtg tccccagcct atacatgggg tgctcgattg agtgtccgtg cccctcagcc 122033

ggccctgggt tgccgtggct cgggtgtgtt tgccacaggg ctacagacct aatggagccc 122093

tgcatacttt tattaattaa ttaattaatt tatttattta tttttgagat ggagtcttgc 122153

tctgtcaccc agtctggagt gcagtggcgc gatctcagct cactgcaacc tctgcctccc 122213

cagtcaagcg attctcctgc ctcagcctcc caagtagctg ggatttcagg catgtgccac 12227

cacgcctggc taattttttt ttatttttta tttttagtag agacggggtt ttggtatgtt 122333

ggtcaggctg gtctcgaact cctgagctca ggtgacctgc tcgccttgac ctcccaaagt 122393

gctgggatta caggtgtgag ctctggtgcc tggcctccta catactttga aaagttctga 122453

aacatcccca ggtgggaaag gaaagagcgt ttgggtggac actgaacctg tcaggggggct 122513

cacgttttgc agtggtagca aacaacctga aggtctccaa ggcctcaaac acccacttca 122573

cacctcccac tcacgctgca agtgtggccg tcacaggctg gctttggtgc gatctcattg 122633

cggagggaac agtgtcacag cagaccacgt gctggctctc aaaacttcag cctggaggtg 122693

acatgcctca cttgtctatt cattggcaga agcaaccagc ctctggccac tctgggttct 122753

gaaaggccga aggagaggtc tccccttggg agagaacctg gaatgttcag agaacccct 122813

gggtgtcagc atttgacttc atcccaccga gtcctcctgc acccactgcg ccccatgagt 122873

tataaccccca ggaaatacaa cgagaatgag tgtcctgatg acgcaaacag aactcctgtg 122933

ggactcacgt tcctgggcgc ttctgttgcc accaagcctc ctgtggcttt tgtgtgtctc 122993

agggtgtgca gagagaatgt agcccctctc tgccctgcct ctctactgca cattatccat 123053

gggccgtcgc actaatgtgc gtgacatttc atcagtggcc gcacttttc tctggatccc 123113

actttagtga agttcagtaa ggacctgaga gctgctccga gcgggcagcg tgtcctggaa 123173

agccatggga ggcattcggc ctgggagggc tgggctgcca ggtggacgct ggagaaatca 123233

gcatggcagg aggagggctc ttttcttgct tggccttcag tatcattttt cattatttaa 123293

tcgctgcttc ttttcatact ggaaaactgt agtttcctgg gaaaccagcc aggcagtgat 123353

gccttaactc attttttccct ctctttctat ttttatgtga ttctcagttt gtggttaatg 123413

acgtgcttcc gggaagcaag atttgagcac gagcacagag acccttttag gtgctttctg 123473

actgcacaga tcagccattt ttttccctgg cattttataa accctcgggt ttagagaggt 123533

cagaaaatac tgcttgcttg cttttttttt gacagagtct tgccctgtca ccaggctgga 123593

atataatggt gcgatctcgg ctaactgcaa catccacctc ccaggttcac gtgattcccc 123653

tgcctcagcc tcctgattag ctgggactac aggcatacgc cactactaat tttttttttag 123713

tagagatggg gttttgcaat gttggtcagg cttgtctcca actaatttct ttttgtattt 123773

tagtagagac ggggtttttac tgtgttggcc agaatggtct cgatctcctg acctcgtgat 123833

ccgcccgcct cggcctccca aagtgctggg attacaaata ctgctttctt actgagagag 123893

gcagcagctt gggtggagga agagggaggg cagatggatt tcagagtttc agtcagtatt 123953

ttccagatag aaaataataa aaatggaaac tgacattcat tgagctctgc aacgcatcag 124013

gcagtgtgtg aagggctttg cctctgatga tcttcacagc gaagtgataa ggctatactg 124073

ctgactcatt ttacagatga ggaagctgag gcatggatag ctgggaactc actcagggtc 124133

acacagccag gaggtgacag agctgggatt caaaccccag accttccaac tccagggctc 124193

acatgcacct gaagagtcag agggaacaga ccgtgcaaag ccccatgcag ggccggggag 124253

accggagcct gaggtcattg ctgtgagagg ggagagggcc tttctgtcag ggtgatgggt 124313

gggatctgaa gctggaaagc cggagagaag ctcgggggtg ccagtccttg catgctccaa 124373

gagattctga tctgctgctg ggcagcaggg aagggatagg aaaagagcag gtgctggggc 124433

cggggaggtt gtgaggctga atccagcctt accaatcaca cctgggccac cccggacgag 124493

ttgctcatct tctctgtgct ctagtgtaac agtcagggat actgcctttg caagcagcaa 124553

agttcttgac tctaaacaaa aaatggacat ttattggctc ccacatttag cagtctgggg 124613

ggaatggctt caggtgcagc ttgatccagg attccaatgg catcaccaga tctttctctg 124673

cactctttcc actgtctgcc ccaccctcaa gctccagggt ttctccttgt cctggcagca 124733

gatagaagct ccttctttct acaccaccca gcacagcagg ggtgaccaag ctgcatccca 124793

gcctttcag tattccaagt cctggggtct ggagagcaca gatcagagcc gaggtggggc 124853

cgacccagaa acccagaaga acctttgccc aaaggagaat ctccatactg tggtcagaag 124913

aaggggagca ggtgccgggg gcaggaaggg gagctcccag atgcccacac actcaattcc 124973

agacacaatt tgaaaaggga ccgggaagac ttgaaatcat tcaccaatag catccactgc 125033

ccagcatgca gtcggcacaa tataaatgct ctttttcttc tgcttggcaa ccaacagggg 125093

aaggaaggca gaggagaggg gctccacagg tcagtgctat gtgtggctgg aactgatgca 125153

ccctcactgg ggtggggtgc aggtgagggg ggccgcaggt caggagggaa gtggtgggtc 125213

cagcttcatg ggaacagggg acaggcacct agaaggggta gccagcaggc agttcaccat 12

gcaggtctgc agctcagggg gacgcatttt gagggtctca ggaacagaga ggcagctcag 125333

acgcgagggt ggacggtttt gcctcgggag aggtgtcaga aacctccggg aaggcggagc 125393

attgagggcg cccttcactg ccccttcctt gaccgcactg cccccag ac atc gtg   125448
                                                       Asn Ile Val
                                                          210

gac atc aag ccg gcc aac atg gag gac ctt acg gag gtg atc aca gca   125496
Asp Ile Lys Pro Ala Asn Met Glu Asp Leu Thr Glu Val Ile Thr Ala
        215   220   225

tct gag ttc cat ccg cac cac tgc aac ctc ttc gtc tac agc agc agc   125544
Ser Glu Phe His Pro His His Cys Asn Leu Phe Val Tyr Ser Ser Ser
        230   235   240

aag ggc tcc ctg cgg ctc tgc gac atg cgg gca gct gcc ctg tgt gac   125592
Lys Gly Ser Leu Arg Leu Cys Asp Met Arg Ala Ala Ala Leu Cys Asp
        245   250   255

aag cat tcc aag c gtaagtgccg gtgcctgggg gtggggggct gtgcattggg   125645
Lys His Ser Lys
260

caggcgggcg ggtgggatgt cctgtcctgg tgcagctgct gcaggggtgg tgggtgtggg 125705

atgagcatgt cctggactgg ccaaggtggg tgggcccatt gctgcttcag cgctggctgg 125765

tcggggagcc tggtcttgcc acctgctgcc ccccagagtc cctgcacagc caggaacagc 125825

ccagctttta gggttcaggg ctctagggcg agggtcaggg catccagaag gtaaggaggc 125885

accaaactta aatgtcacct cctgtaggaa agcttcccgg cctcctactt tagatctgga 125945

tcctcctctg tggccctgca gcccccaaag cttccctctt ccaaaactag ccacacccag 126005

caaacttgct gtgggctgcc catcttctcc ggctccttgg agcagggtct gtaacatgtc 126065

ccctcatcct agaacccacc acaggcctgc tgtggggggtc ccacaggggt atccgtggag 126125

gtctggggct gaacgagttc caggggacat tttgtgacac agcagccccc agcataacag 126185

ctcacactga acactcactc tgagcccagc ccttaccaag ggctttacct gtgaactcat 126245

cgaatcttca cacaagcccc aggagatgct gttcagaaga ggaaacagaa gctccagtta 126305

ttggcccaag gtcacccaaa ttcaatcgtg gcagagctgg gctgcctggc actgggttgt 126365

ggccatgggc tgcacactgc cacagccatc ccagaggccc ctgaaggcga gggatcaggc 12

cacggcatcc tccttcccag acagccctgc agggctagca aggggccagg caggaggtgg 126485

ggtgtccccc aggcagaggg cagggacttt gcttatctgg ttcccctcac tgtctgtccc 126545

cagcacctac cacagtgtct ggaaataaac acttgttgaa taaaccccag aggaccctga 126605

ctgaagcctg ggtgccggcg gcagagggct gtttgggagc gatggggcca cactgttccc 126665

ttagggtgtc tggttttgct gggcagtcag agacagggtg cacaccagcc ccaggactca 126725

ggctcagggc ccaccaaaac ctccagcttc tgcctccttc cttggccaag ttctggcccc 126785

cacatccacc ccctcatctc ctctgggttt gtccacgctc cgtgtgtcac gctcagccat 126845

ccaggcattc agtaggcgcc tattcctggc atgggtgtgc agcagaggcc caccgtcggg 126905

agctggcgtc tgcgggggag acagacagtg aacacacacc tgacgcatgt cagggcatgg 126965

tgagcaatgg caccaacacc cacaaagtca ggtacaggga cagagggggt cagggagggc 127025

ctccctgaag agaccacagt ggaacggaca ccctgagggg gtgggtggtg ccgatctctg 127085

gggaagaatg ttcgagaagg agggcactgc agtggccgtg actccacaca ttgcctgtag 127145

gtcaagggag ggactgggtt ttgttctggc tgagctgaga atgagaagct gtgggttgtc 127205

acgagattgg gacttgagga ggaagaggag acgccgcaga gggtccccgg gggagcaggc 127265

gtcagaggtc gctgcagggt ctgcaggaag aaatggtgac cccactgagg gggttgttgg 127325

gaggtggggc agggctcacc tggctgcccc ctctggatgt tgcttggagg tcgagctttg 127385

ccttgtgggg cgtgactctg tggttggttt gagctgtggg tgaaggtggg gccgtggcct 127445

ggaacaacag ggggtgccag ggaccagcag gcaggtttca gacccgcgag cctgaggccc 127505

gtattgggtt ccaaggaaat gggtcgagta ggcagccaga tatccaggca gtaatgccac 127565

ctggagataa gtgtggagtt agtggccgtg gactgatggg aggctggaga ccagctgaga 127625

ttcccggggt gcaggggggct cggggctgcg tcctgtgcgc cacaacaaag gaccacacac 127685

ttggtggctg aaaacagggc atatgtatag tctcagtccg cagtcccaca gccagctcac 127745

tggccataat gaaggtgcca cgggctggta ccttcgggag gctctgggga gcaccgtttt 127805

ccctgcctct tctggcttct agaggcgctg cgttccctgg cacgtggccc ctcccccatc 127865

ctcccagccc acagcggcca agcctctctc acgtctctga ccctcctgtc tgtctttcgc 127925

gtataaaggc ccttgtgatc gccttgttcc tgccacccct aatgatccag gatgacttcc 127985

tcatctcaag gttggctgag ttgcgtcctt gatttcatct ttggccttat tttgactttg 128045

ccgtgtagca taacatagtc acaggtgcta gggatcagga cgcagccgtc tctgggggcc 128105

gttccaccgc ctactacagg acactgcccc cccacctacg cctcccgccc attcactcag 128165

gccacatgtg cctccagctg tgcctgtgta cagccaggtc tgggtccgaa tggaatggga 128225

gaatattggg gaagagaggg ggttcttcct gctcctggtc cgctgctgac cccgtgtgag 128285

ccctgtggga aggaggatgg ggcttcattg gcaccctgtt gtttataggg gtggaaatcc 128345

agaaacatcc tcaatatccc aatcttaaat gctaagatta ttcaactctt ctgaaatgag 128405

tgaggcagct ttttgtttct ttttctggaa ccgttggtgt aatatatctg ctccttgaag 128465

tattaggaaa acttgtgtgc aaatctattc ggcgtccttt tgagggagag aaggaaaatt 128525

ttaagcaacc agtttaaaat gccgagaaaa tgatgtcgac agtgatgaca tccatgtact 128585

agaatattgt tcggtcatgt cagctattgt tttagaagaa tttttaatgc cacagggaag 128645

tgattatgtt gaaagattta ggggataaca aaataaggct atgaccacca gaaaagtgga 128705

aacagagaaa actctggaaa gaaatacact aagttgtccc tgagtggtga gctataagaa 128765

actgatggaa tattttcttt ttatttttct gtgtattttt actttcatga tggatttgaa 128825

ctttgaatca gaaaacacat gtgtgtgcag gaagggtgga atttagagag cacagagacg 128885

ggcataggac agttttgtgc acccctcaat gtttgtgtga cattttttcag tgggctagag 128945

ggggcagtca gacccccttt ggctcccgaa gcctgtgcta tccggtttcc cagggcagaa 129005

gcagcggtca catatacctt gcacatttcg tgagtccaag cacagacaca tccatttcag 129065

ccacgtaatt tcatatgcct gatgatgtat gagccttgtg tgaatcagcc aatgaactca 129125

acagtgcgag aaatatgagt gttttcgatg actcaattca atttcattct tcaccccag 129185

ctcccagggc tgcagtgaac gttaactttt agggcctcgg cagattccac tcctctccgg 129245

attgcactga ggttccagaa ggctctggca ggccgaggtg cggagagagg gacatggtgt 129305

cttccaggcc actgaggact tttgattgtg cctgggcgac cttggggcca ggtccttgct 129365

gacaaatccc caagggcctg ttggctgtgc tcagtgactc acctgggagg ttggcaacat 1294

gctgacctct ggcggctctt gcccgcacca gtgatcccaa gtctgtagac agggtggggc 129485

tgcctgtgat gtactaaggt tttatgtatg cttttttgcac acacagtcat aggtgaagtt 129545

ggtttataat tttcttttct tatactctct ttgcccaatt ttaagattat tcaactctcc 129605

taaaatgaac tgggcagctt tttctttctt tttctggagc agttgatgta atatatctgc 129665

tccttgaaat cttaggaaaa cttgtgtgca aatctatttg gtgtcctttt gagggagaga 129725

agaatttttt tctttttttt tagacagaat ttggctccat caccctgaca cgatcttggc 129785

tcactgcagc ctccacctcc tgggttcaag ggattctctc acctcagcct ctggagtagc 129845

tgggattaca ggtgtgtgcc accatgcctg gctaattttt tttgtatttt tagtagagac 129905

agggttttgc tgtgttggcc aggctggtct cgaactcctg gcctccagtg ctgggattat 129965

aggcatgagc caccatacca ggccaagaga agaaaaattt taaacaacca gcttaatttc 130025

tttttgatt attgatttat gcaaatttta tttaaaattt ttctagaata tttttcatta 130085

tcaaactcaa tatcctgtac ggaaactttc tctttcgtgc cagcaaaaag attgcgcagc 130145

agttttagc atgcttttac agcttccatt tctcctcatt taatttgccg cacattgggg 130205

cgagtggctg aagtgtctgt ccttctgcat gccttgtccg ggctgtgttt ttgctctgtg 130265

gctctcatgg gaaatcaagc acgcagccgc tttccaatta gcaggtggcg gctgtttta 130325

atctgaacac aaatggctgt tatttgagct aatttttaa aagggatttg gggattagga 130385

ttagttcttc acctcccact tccatccatg tatccaatta ctgctcaaaa ctcagggagt 130445

ggctgatagt gacaccccag agatgtgctc acagcatcat tttcctaaca gaatcagacc 130505

gcgaatgaag agcgtcctgg atgcaggaag gtgagcattt ctgccattgg acagatgagg 130565

agaccgaggg tccgagaagc tctgtgactt ccctggaccc ctcctctatc agggcagagc 130625

tgggggcaca caggccactc tgttccctct gcagcttccc acctttctcc gaagcactgg 130685

aaatccgcgt cttgtgactg cttggcagtg tgacagggta accgtggaaa caaccgtaca 130745

tgagtcctca aaatagacag ttacttctgc ttatgacagc acagagcctg cggaaagaaa 130805

gggccgtgcc cggaacactg ggatttctta gaattggggg tgatgatggc tgagaccctg 130865

atttcttaga atcggggccg atgatggcca agacccttca taggccccca acgacgtgcc 1309?

tggcccggtg ttgggtgaaa taataaccgc agctcattct ttgcacacct agtgcaaaca 130985

catgctgttt tcagtttata tctcattaaa tactcagcac ctatgatggg tgtgttatag 131045

tattcatcct acagatgagg aagttgaata cacttgaccc tggaatgatg tgggagttag 131105

gggttcagac agtgcctgaa tgcagttgaa agtacatgct taacttttga ctccctcaaa 131165

acttcactcc taatagtcgg ctgttggtgg ggagcattac cagtaacatc aacagctgat 131225

gaacatttga agagactgat gtctacgtgg attttatgca tttgtgacat acctaacttt 131285

ttcttttctt atatatatat gtatgtatat atatgtatgt gtgtgtgtgt gtgtgtgtgt 131345

gtgtgtgtgt gtgtgtgtgt gtgtatcgtg gcagatctcc aaaatgtttt cagtatattt 131405

actgggaaaa tcgcacatca ggggacctgc aggttcaagc ctgtgttgtg tgagggtcaa 131465

ggggcaactg tatacgcact tctcattgct gcgggaacaa ttgccatgag cttagtggct 131525

caaaacaaca caaaagactg ttgtacattc tggaactcgg gctaaaatga aggcgtcagc 131585

tggcctgtgt tatctctgga ggctgcaggg tggggctgtt ttctgatctt ttccagctac 131645

tagaggcttc tagaggctgc ctgcactcct cagctcatca ttccaacctc tgcttccatc 131705

atcccatctc tttcttccat ctttgacctt ccttcttcct cctatacaga cccttgtgat 131765

gacattgggc ccatccagat tatccagggt cacctccgta cctcaaggtc cttcacttaa 131825

tgacatctgc aaagcccctt ttgccatgtg agataacagg tgcacagatt ctagggtgga 131885

ggatgtagat agacgccttt aggggtcatt gttctctgct acattgaagc acagagagat 131945

taagacattt gcccaaggtc acacagctaa gtagagccaa gatagagcct cagagagtct 132005

catgccttca acctgcactc ttttttccctt tctcatcaca gaagccttga gaactaaaac 132065

tcttacagga attgtgggtg agctgggttt tttttttttt tttttttgaa atggagtctc 132125

attctattgc ccaggctgga gtgcaatggc atgatcttgg ctcactgcaa cctccacctc 132185

ctgggttcaa gcaattctcc tgcctcagcc tcctcagtag atgggattgc aggtgccggc 132245

caccacaccc gactttttgt atttttagta gagacaaggt tttgccatgt tggccaggct 132305

ggtctcaaac tcctgacgtc aggtgatctg tccacttcgg cctcccaaag tgctgggatt 132365

acaggcgtga gccaccgccc cccacctgag tgggttcatt taaaagggct gtgtgggctc 132∠

aactcccagg gctcactcta gtaatggatc tgctgcagaa agaccagcct cagcccagac 132485

cctgcagctc tccaggtgca ggaccagggc aaagctcccc aacagtggga acagcccatg 132545

tgagggccct gtggctggat acagaggctg gagagaggag gtgaggtcag agaggtgtgt 132605

ggctggagga ggcctcacag gccagagcaa gagcttcggg tttcctctga aagggacagg 132665

aaccacaagg ccgtctgagt agggagtggg ccagcctggc catgtgttca caggatccct 132725

ctggctgccc agtggggaat aagctgaggg gtgaggtaga agtgggggct ggctgggggc 132785

tagcgtgttc acgcaggtga gagacgctgg tgcgcagagt gagtggccgg tgcaggtggg 132845

gaaggtggtg ggccctgccc cccatggcag gtggggcctg ctggatttgc tgctggattg 132905

gatggagagg gagggagggt cggggatggc ttcaggctct gtacagagac caggctcccg 132965

tctgtgtgga gctttgtgga gggaccacag gaaggggact agtaaataag taggtgcatt 133025

ggagtgggaa ggtttccatg aagggcatca ggagccctct gatgcattgc acctcagggg 133085

tcaggagagg tgtccctgga tgagaaagag cctgggaatg ggggcggggg tgccccaccc 133145

cacagtagtg tctgagagga acctggctga cgtcaggacc cgtgtggctg gaacaggtgg 133205

aggggtgggc tcttgtgtgc aaagatgggt taaggggaga gcgtgccggg cctgggggcc 133265

acagctgggc ttgagttttt tgtttgatgg ggctcgatca catggtgctg ggcagggagt 133325

gacaactgtc atctcttcat cagtgagcat tcattgtgcc cacctgtgcc attgtaggaa 133385

ctccctgctc cctcccccact gtgtacagcc tcagggatag ggaaagaggc cgaacaggag 133445

gcccctcccc aaacagtggc atcacctgga acccaggagc aagccagtgt ccaggggtgc 133505

tcggggatcc ataacccccca tcgtccttct tctgcttctc ggaccctcca agctcctcct 133565

ggagcgcggc ctgaggtgag gccagctggc ccaggccact ccaccctcgt ggatggcctt 133625

gtatcccatc agatcacagg agggacccgt ggccagggta gccaggggcg atcactgccc 133685

aggaccccat aggcccctcc ccctccaggc cacctcctcc catgtttccc acctccaccc 133745

acctgcaggt ccctcccacc ctcatctgtt tctctggagg cctcactgaa ctgcacttgt 133805

ccctgaatgc atggctcaag cccatgcatt tctactgtgt gaacccaatc ggcctccacc 133865

ccagccccag aggagtgtcg tccacacact gacaacgatg ggggtggggc acagcaggtg 1:

ctaccaagag ggccacagag caagtgccac gggcacacag gggccacccc caggctggct 133985

gaggcttctc tgccaggcct ggaaactgca gtggaaccac atcaggttgg ggaagaaaga 134045

tgtcagtgag gggctggagc agaaacggca ggcagctgca caagcttctc tctgctcagg 134105

gagcagggcg gggccatgag gcagggtctg tgctaggcag gggcgccaag atgatcagtg 134165

actaatgacc aaggcaggac ccctggccca agggagctta cagccccatg aggggaccct 134225

gccctcctgc cagtgccaca ggagaaggta cccagcggct tgggggcagc agagggtaag 134285

cacaggattt ctttagagag catgtgaaca atatgcacag aaagcagggt gtgagcctgg 134345

ggttctagag gatgtatagg agttggtaag aaagaccagc taaaaatggg aaagggatct 134405

cagggagaga aaatgatgtg aaaaataact ccaggaatcc ctccgtagtt ttattgagca 134465

gctactgcaa gccccacact gggccatcgc ctccaggcat gacctctgaa gatcccatcg 134525

tgctccttct ccagatgagg gaagctgggc tcagagagga ccaggccctt gcctgaggtc 134585

acacagagca cgatgcattc tgctctctgc ccagcacatg gcggggcagg ggctacggga 134645

ggcaggggga gatgcctagg gctcaacatt gaggagacac ccaccccag agcctttgag 134705

tggatgcagt gccctagggg cccagcagga aggggctgg agtgtgcggc agaggggaac 134765

ttgcgtgtgt gaggcagcag cagcaggctg gttgggaccc attgagaagg agctggtcag 134825

ctacaggtag gagcctaaac cttgatcctg tgggcactgg ggagccaagg agggcttcaa 134885

gcagaaggag gtgccgtcgg ctctgtgtga ggctggaaag gaaggtgggc acctgctctc 134945

aggcttcacc tcctgtttcc tttgattcac aggtccgtca gagccgcccc acaccttggt 135005

tgggctcccc aggtcccctc caccttggcc tgagccaggg atgggggtgg ggaaggctct 135065

ctgtggccac aacaccgtgc aacacccagg gaggaagagg atgtggttgt cagggaaccg 135125

gctcgagcca tgagagccct aattatgcaa aatcattaaa aagaaacagg atggagattt 135185

cggctgattg agagctctcc aactttaaa taattagggt gtgggggagt gggtggagat 135245

gggactgggc ccatcacaag tgatgggggc tttgagacat gtttctttaa acccatggca 135305

ggaataatta ctgtgaaatg tccttagcga ttcagtcaat tagaggggag accccttatc 135365

tcttgttagc gctctgaagg tggtgcagcg gggtgtgtgt gtgtgtatgt gtgtgtgttt 135425

gcgtgcgtac tcgggggcag cgattgatat ggaatagtag attccactat cttttggaaa 135485

aaaatctatt gtatcaaaaa tttcatagaa acgtctaaaa agaaaaagag gaacttttag 135545

gaatggtttt tcaggcttat taatatccct tccgatctat cgtttgcatt cctgttcctt 135605

gtgtccttaa aaaccctcag aaatgcccga gtacagccag cagtggggcg acaagggcca 135665

gcgccgtttg gctttgtttc cactatcgat tcaattgttc tctcagcctt tgatctttgc 135725

ggttttcct gctggaggct ggtaggatac ttggccactc gttctgccct gtgacaccca 135785

gcaccggtgc ccctgtgat tctggctgaa tccacccgca agtcctgctg ggaacctaga 135845

ccagccctca aggtctgggg gagtctggtc tgagagaccc ctgagcaggc gaggggtac 135905

taaggccact ccggaagtca gcctgtgaga ggccgccctg gctcagtttt ggactcacct 135965

ccgcctcacc tccaagtgac agaaagccta gttcaggcca gacagggttc ccgccactca 136025

cctgggcagg tgctgggggc caccaggtcc cgctgagatt ctcttccttg tttccatcca 136085

tttagccacc gggggtccct cttctctcaa gccctctccc tgcttctccc aaatatgagt 136145

ctctacccac tgctaatgga aaggcagcac aacatcaccc ctttagggaa tcaagcgttc 136205

gaagtgattt tctttacggt aggcatcaga gagaaaaggg aactgtggtt gatccttctt 136265

tggcttaaca aagaaaaact acaaatatat atatatatat atatatatat atatatatat 136325

atatatatat atacacacac acatacagaa acaaagatgc caatttaatt attattatcg 136385

gggcacaaaa cattatcatg tgagatgacc aattagaact cagaggttca gaagctcaag 136445

gtgactccca gggagatttt actacccta ccgtacccat cctcctccac aggcagggag 136505

gggttggagg gctcacagga gggagcatta gggccagggc ctcctccatt tttatggttc 136565

ggaaatcaca tcgtatcaag gcagcataag tttgcacagc cctggagggt tgactcgttt 136625

ggggcaaact caagagggcc tgatgaataa gccagacatc actgactctg tgaatgccaa 136685

cagtgacatt gggataccac ccaccagggg ctggacccct tgctgagtgt ctctgtctcc 136745

aaaaacagct gcgcaaactg ggcagtattt ggctgcattt gacagagaca gaaacagaac 136805

cctgacagga aaaggcaagc atcttgaagt cacaaccagg aagtggcata gcgggtttcg 136865

aacccaagtc tgcctgactc ctggtcctgc aaggtctttc actataagcg atctaaactt 136925

gagccactta cttttctata taccaagggt catcaaattc tttctgcaaa gggccagata 136985

gcccattttt tatggtttcg tgggaacata tgttctcttt gggcaaagtt tgccaacttt 137045

gccattttta tccaaaaagg gttttcacat aacaatgtgt tggattcctt gggggatgac 137105

ttcttttccc aatcaatact ttttttttaca aaaacctggc tcttgggcca aatttttgtc 137165

ccatggggcc tgttatctta ccctccccct tgtgggtttt accttgttgg aacaaaaaaa 137225

accatccatc tttgttattt ttttgccccg ttgacacctt ttctatttat ttaaattttta 137285

acaaaccgat cctttttggga attcatattt ttggggctttt ttgttttaac gattgtcgct 137345

ttaaaaattt aaattggtgc cggtggcttc catcctattt atatcaatca tattaatttt 137405

aagcaagctg atctttcgga ggcccttctg gtcccttggt tgtggaaata actgttttct 137465

actataccaa agtatctttt acttgggcgg gttggggttt tttaaaatgt tttgggaaaa 137525

atataaaatg agagagaaag agaaggagag agacgggaag aaagaagaaa ggagagagaa 137585

tagagaggga agaaggaaga gggggggata gtggagtagg ggggagggga agagagagag 137645

aagaagggag aggagagaaa agaagagagg agagcgagga agaggagaaa gagaaagaga 137705

gaggagggaa ggaaggagga gaaagaagag gaaagggggga gagaggagaa gagaaagaag 137765

agaagagagg aagaggagga gaaagggaaa gggaaaagaa agagagagag aaaagaaaga 137825

agagaagaag agaagaaaga gaaaggagag agggagggag gggagaaaga gaggagaagg 137885

aggaggaaaa gaggaggaag gaagaaggga ggggggggggg gggaggaaga gagggaggaa 137945

ggaagaagga aaggggagag agaagatggg aggagggggga aaaaggaaga ggatagaaaa 138005

aaaaaaaaaa aagggggggga gagaggaagg gagtgtgtga agagggagag gagaagaagg 138065

gggaagagga aaggaaatga ggaagggaag aagaagagaa aagaggagag gagagagggg 138125

ggaggaagaa ggaaaagaga ggagggagga gagagagaga gagagggaga ggaggaagag 138185

ggagagagag gaggagaaaa aagaaaaaaa agggaggaaa ggagggagga gaaaaaagga 138245

gttcgttaag aagggaggga gggagggaag taagtcagta gggctgcagc actcatcgtg 138305

cactgggctc actctgtaca gcatctttgc tgcctgcggc cctgcctgta cccagggtgg 138365

tgccaggcct ggctgcaacc ccctcctcct gccccttcct gaaaagcgcc cttggctcct 13842

gttgtaggga ggagcaaggc cagggctcag ggaggtgaag gcgttcaagg ccacacgagg 138485

ggctcgggga ttgagaccct ggcagcctgt tctctcccag ctccctctgc gagcggcctc 138545

acccttcctt cccatggtgc tgattttctt tctggtcctc ccttcaatgt gcccttgtgg 138605

aaagaggaaa gctcgggcca ctgagaaggg cgcccctgtg aacgatggag ggagattgag 138665

gtcgcaggca ggcctgggga ctgggggcgt gtggaggggt gggttgggct cctggaaagg 138725

gaggcgccta ctgtcagttt tgagtttcgt taaacacctg ccagcctgat agcattctaa 138785

ttccaaaata tgacaccact tattagtgga taaactaggc tccctccctc cttcctgatc 138845

ttgacgccag gactggaagg agcgaccacc tgccctcagg atacccggtg cagtgccatg 138905

gctttgaggg cagaggtgtg gggttgaagg ctgccactgc tcaccagagg ctgtggagag 138965

gctaaggaca gggatataga tctcctgagc ttcaggggtc tgcttcagag acaggtgttt 139025

ggaggccttg ctctcaagag aggtgggggg gaccttcctc ctgctgcctg ctctgatttg 139085

gggggatacc agaggcatga acataaacgt gggagccttt tcctgccctg taagcagctt 139145

ccctcccccct cctctcacct cccctcacct ccctgcatgc agtggcctgg gatcaggatg 139205

gtgacacctg ggctctgcag ccctggccca ccgggtgctg gaacttcctt cctccgtcgg 139265

gaggggactc cagcctcctg cctgcccctc cctacctcct tgactcagat ttcatcctcc 139325

ctgtctctga accctcagtg gctcccgttt ccctaatggt gacttcctca cccctctccg 139385

tggcccatga gatcctgcgt gggtggcccc ttgcgtccct gttcccccctg ctcactcctt 139445

tctctgcctg cacggcccctt ggcgtgtccc tgcctcaggg cccttgcgtg tgccgtccct 139505

tctgcccagc acacccctct ccaggcatcg ccaccaatct ctccccaact tcactcagac 139565

cttggtcaaa cagcacctcc cacggaggcc ctgttcacct aaactaccag cccccagcac 139625

ctatctgcct gctggctctt cctccccagc acttgctgct ccctggcggt ggagggcgcc 139685

acttagtttt attgtctgta tctgcaagga gaatgttggc tgcacaggaa cagtggcttt 139745

atgctggtca ctgcatcatc ccagggcctg gcacagagta ggtgctgttt gcattggttg 139805

actgagtgaa taaatgaatg aatgaatgaa tgagtccatc agggcatcca gtgggccctg 139865

cagaggggag ctggacagga gttgtatttc tggagaggca gtggccaggt acagtgtcca 139

ccttggacag gagggagaat ggggtgctgc catttcccat gaggggataa ggggctggga 139985

cagacctggg aggcaggaca cgagcccttg tggctgagag gggccagcag ggaggggcct 140045

ctcgggagcc tcagggtgct gtgatcagct ctgcttccct gtttctgggg tagagaccag 140105

agcaggccag caggcaaggc tgccactcag ccggtttcca tggggacagc tggacaggtt 140165

gtcataggtt taggtatttc cagattggct ggtgaatggc tgtcaactcc accaccctgt 140225

tctcttccca tcgttccctg ggtctctctg tggcccaggt cctagggagt tagtgcctgg 140285

cccaacaggg gtcctagtcc ccacgctact tcagccccag ggtcactgct accagtgaga 140345

cagataccag cagaaatgag cttagagacc ttgtcccact ttgggaactt ctgcagctca 140405

ggaaggccag gttatggggg cagtggggag gggacactgt ctggggagtc ctcattgccc 140465

actctgtccc agtctataat tgtccaggtg ggcagcaaac cgttgccttt agggaccaga 140525

taagcaactt cctgtgcaga gcaggtgctc caagaaaaaa ggagatggtc agtggatggc 140585

atacaggaga ctgtaccaac tctgtggcag tcagatttga ttttgttaca aaccccatgg 140645

caatgaaaca aaacccacct ataagtaggg ctcagccatg cctgcccagg acaccatgaa 140705

cagagataac tactggccca aggtcccagg gccagttagt gccagagcca caagcagtgc 140765

ccagtctggt agaggacatt gtccagcaca tttgagaatg tcaggacacc tttgcaatct 140825

ggcattcagc atcaccagta gggggcagta gagggcagca catcaagtat agctttggct 140885

tcaaatcccg actctaccac cttcttccag cactgactcc ccaggcatgg gttttagcca 140945

gctgctcctc cattttcttg gctatgaatg gggatagtaa tggctatttc tgcacagcac 141005

agaatcttac caggcttgtt ccctggtaag tgtttagttc taggtttgag gaatgaatga 141065

atgactgaat aaacagagca tgggcccagg tgcaaaacag agtcatccgt cgtgccaacc 141125

ccatgggcgg gagcagcgca gtgacggcca ttgcttctct gtctccacag tc ttt   141180
                                                            Leu Phe
                                                             265

gaa gag cct gag gac ccc agt aac cgc tca ttc ttc tcg gaa atc atc   141228
Glu Glu Pro Glu Asp Pro Ser Asn Arg Ser Phe Phe Ser Glu Ile Ile
     270   275   280

tcc tcc gtg tcc gac gtg aag ttc agc cac agc ggc cgc tac atg ctc   141276
Ser Ser Val Ser Asp Val Lys Phe Ser His Ser Gly Arg Tyr Met Leu
         285   290   ·   295

acc cgg gac tac ctt aca gtc aag gtc tgg gac ctg aac atg gag gca   141324
Thr Arg Asp Tyr Leu Thr Val Lys Val Trp Asp Leu Asn Met Glu Ala
     300   305   310

aga ccc ata gag acc tac cag gtgggcacca cagcaggaga cccccaatcc   141375
Arg Pro Ile Glu Thr Tyr Gln
     315   320

cgggtctttt ttccctatgc tgagatcccc atggagggggg ccttcctagc caggcgtggc 141435

tttcatatgc ccggtatgta ggtgaagaca cggaggctga agaaatccag caactcatcc 141495

ccacacgtag cttggcagag ggcaggagtg ctcagtcttg cctcacaggg agctttggat 141555

gtccctgagc aaggcctgca gtccagggcc caggggcctc aattccaggg aggaaagaga 141615

tgtgggaaca gagatgagcg tcaggctggg ccccagtgga gcatgtagac gatggcttnc 141675

cctccccact ccctgggagc ctgcatcgga gctgtaccat taaagagggt taagcgttgc 141735

cctcccaggg tgcatccgta agcagtgcac gcagaggtga actgagcaca tgtttccttt 141795

ccagatcctc agcacaggcc tataagcctg gagtctaggt gaagcctggg cccttcttgg 141855

acagtattat ttattatctt gctattatca tccattcaga tatgttaggg ggtagacaac 141915

aaaactcatg tgatgttaaa ataaaatgtg gacttgaaag aaatgtggga tggcttcaaa 141975

gctggttcca gttaggtggg gagatcaggg aggcttcttg gaggaggtgg catttgtgct 142035

gggccttgaa ggatgggtaa gatctggncc gtgcaaacat gggtgggaaa acaccccacc 142095

agaaacccca gccggttcct caccgtgtca ctcctcacac angggtgcc acgtgcttga 142155

catctgtcac ctccattctt tactgtccgg tgacaaggag ccatcatcct atttggtgga 142215

aagggaactc gggcactgag aggtagggag atgagggagg tgtctctcgg ctgggcggtg 142275

acagattcag agcccaggct cagagcccta cgctttcctt tcctccgtgc gaagacctag 142335

taggaaagcg tcctgggtgg cgcaggcctc gctgggaact ggtgcagagc tcagagggtg 142395

ggctgctctg atctgacctg ggccccagag gaacagctca cgctcctgga agccacacac 142455

ccacaaggac cgctatgggg accgcctgtt tgtcagccac gtgtgtttac ttgagttctt 142515

gcgactgccc cagctcctcc ctcaggcccc ctcctcacac tgcacacccc aggcaggact 142

cagccctcct ctgtccctgt gggaatggca gagaccccag actaggagag ggacaggata 142635

agcccggctc aagcctgcag gagcaactct ctggctccct ctggaggcag ctcagggaaa 142695

tgaacatttc caaccccctc cggccccttg tccggtcact tacctccatc cctgaggtca 142755

gcaaaggccc atgaacccct gaaactacgt ggaatgtgtt ctatgagcat tttcaggggg 142815

aggggggacac agctttctga aattctcatg aaggacccca cgaaggaggg gaatgactgt 142875

tctggagcgt gaggccgtaa gctgggcact tggcatctgg cccagctgac ctattgatgc 142935

taaaataata gcaataacta cataaaagca gnacaacaac caacattttt tggtggcttg 142995

tgatgtgcta gaaattgtgt gtagcaggac tgcgttcggc tggtgtgcgg tgcttaacaa 143055

atcggggcta tttttctccc anaacaggga gtctggagag ggcagtccag gaaggtgggg 143115

gggctccatg accccggcag cgccacagtg gttccttctg tgatccagtc caccatcatt 143175

tgggcgttgg ttttccacct tcacatgtgg tacctcatgg tggcaaagtg gctgccacac 143235

ctccaagcac tttgcctaca ttccaggcag gaaataggaa atgcactaga tctcacccct 143295

ggggtctgtt gcgtgtttca ctgtgattgt aaaatcttcc ccagaatgct tctcagaaga 143355

cttcttacac ctcattgtct agaatgggtc cctggcagcc accatagtgg ctgggaagat 143415

taatggttta acagcctctg tggttgaaga aggcaagggt gaaggggctg gggacggttg 143475

ttgaatgagc cacactgagg taagtccata ntatgctttg cctcatctaa gcctcccagc 143535

tgtcctggga ggtgggggccg gtattctccc catcccattt tattggaaga cnattgagtt 143595

aaatggcaaa tctgtgacag agccagcaag cagnggacct tagattgaca gtctttctcc 143655

agagctcttc ctcaccctgc cactagaggg caggagatgc ttagtgcacg gcagagagaa 143715

cagcatgcgc atttggacgc gtgcatcacc aaggctgctg ggagctgagt aaggaggaca 143775

cacaaaaatg cagagccggg ggtgggacac gaacactaaa acctgctgcc attcatcccc 143835

cttgatttta gttgttacac atactgagcc agtaccctgt gcccaacaca gtgctagacc 143895

ctggacccag agagaaggaa gaacctcggc ctcaccctcg agggtcccag acagacagga 143955

acacagtgac cctcagcttg gtggggctgc agcccagggg cccaagggga aggcaagggt 144015

caccaggagg acacgggggc tggggaggga tgagcagggc cccaggcggg agtcaggtag

ccttgtctaa ccatcctgtg tgcagtgaat agcaggccct tcctcccaat cctgcttccc 144135

ctagtgccac tctgttttcc tgtgtagtcc ttgccaccat attagtcaga tggctcagag 144195

aaacagaacc aacaggatgg ggatagagac tgagaaagaa gggagatttg aaggaattag 144255

ctcacgtggc atgttctaaa tctgcagagc aggcgggcag gctggtgacc caggggagag 144315

tgactatgcg agcccacacg catctgttag cggaatcccc cggtcctcag ggaggtctgt 144375

ctttgttcta tcagggcctt cgactgattg dacaaggccc cccacatgat ggagggcagc 144435

ctgctttact cagtatatca gcttaaatgt taacctcccc tacaaaatgt cttcacagaa 144495

acaccaagta tctgggtacc ttggcccagc caagctgaca cacgaaattg acgttcacac 144555

cacccttcac attttctgtg ttcgttggag ttgttaattt caactcctgg gagttgaaac 144615

caggctccat ggcacccagt taccttccct tccgcaccca gagggcagag cccgtgccct 144675

gttgtcctgg cagctccagc ctcagcagag ggctggcact catgcggccc tccgggtaca 144735

gggcttgtag gaccggctgc agtcaggtgg atgcaggtcc tggggtgtca ccctctctcc 144795

tgtggggtac gggaatcctg gggaagggtc ctggtcagcc tcttagaggc tgtgtgaccc 144855

tgtgagcctc agtgcctcgt gctgtggatg gatgagaaac ctctgtgggt tccctcttcc 144915

cctttcttga tggccgccac cctgtgttct cggagatcat taccctcaaa aggcctgccc 144975

tgcacttaat gccagaacca ctgtgaggtt cgccctctta tcactttaag tttgaagaaa 145035

ctgaggctca gagagatgaa atcacttgtc caagatcaca cagctgggag ggcagagcca 145095

ggatctggac cccaggtggt cctggcccct gtgctgtgag cgttctgttt gtcacagtgg 145155

actctgctcc ctggtgctac tcccgtctct ggccacagct cagaggtcag ccgtgtgcct 145215

ggtcgtgggc ccccgataag atgagcaggg ctgtattggg ctgtgtcacg gtggaggtca 145275

gccgtgtgcc tggtcgtggg cccccgata agatgagcag ggctgtattg ggctgtgtca 145335

cggtcggggt cagccgtgtg cctggtcatg ggcctcccga tgagatgagc agggctgtgt 145395

cgggctgtgt cagagcattc agaccctcgc tgagatgagc aggtctgcgc tgggccatgt 145455

cagggcatgc agaccctcgc tgctctttga gacccttctt gtggaagggc caggatggtc 145515

gggacgcccc gtccactcac ctcatccctt atcccaccag gtc cat gac tac ctt   145570
                                                Val His Asp Tyr Leu
                                                      325

cgg agc aag ctc tgt tcc ctg tac gag aac gac tgc att ttc gac aag   145618
Arg Ser Lys Leu Cys Ser Leu Tyr Glu Asn Asp Cys Ile Phe Asp Lys
      330   335   340

ttt gaa tgt gcc tgg aac ggg agc gac ag gtaagccctg acctcagccc   145667
Phe Glu Cys Ala Trp Asn Gly Ser Asp Ser
        345   350

gcacctcacc tcaccgtagg gagggtttct gccctgcagg ggtctgggct gggattccgg 145727

tgacccgcag catggggcta ctcagcctca atgggtccag gtgtctgggt gaagcccacg 145787

ctttccagag caggtccaac tctcagcgct cagattcaag gggcaggaca tgaaattctt 145847

catcttctgt cactgaacct cacagccacg ttggcgcctg ccctatgggc agtagtggga 145907

acatgtttag ttaattcagg gtccccggtg atgtgctccc ctctcccagc ttgtcggggg 145967

cgagggctat agcccagcac ccggtcacca tcatccatcc acacctgtat gtcctgagac 146027

agccctgcac ccctgtggct ttgaccatcg gtctactcac ccctcctccc atcaccacta 146087

ctgtctccct ctcttcctgg tgacacccca ctcgggcccg ctgaggctca ggggcacctt 146147

ggagctccta caccctccag ggcttgtcac aatccacaag tccagccgtc tctcaacccc 146207

acctgcctgg aaagtggcgc cccagtgcca gaagtgagtt cctgtgtctc cctagcctgg 146267

gctcagccca gggcgggcat ggacaagggg gctgtggcag gggctcctga cctgacctct 146327

acccgtgggt ccttacctct gtgtctcttc tctgggattc ttcctccatt ctggaggtgg 146387

gaaaatccct cttctgccct cccaaatcac atcagctttg tgctcagggt cctgccaggc 146447

gtaagattct gaaatggaca agcctactct ccatctgtga gtttcgatct cagaagctga 146507

gaggtggcct ctcagtgtct cctacagctg cttcctcaag gacaggatgc ctctttgtcc 146567

agccgcccag attcagaagt gggtctccag atgatacaca gtgtggagat aaagactaca 146627

ctggctgcta gatcagaata ccacctgtca ggagcccatg tactgtcacc tcctccccgc 146687

agtcctgtcc agtgtggtgg gcaaggaggg tggagtgaga gccagcagcc ctgacttggg 146747

catcacctgg tgggggctg tccaccctgt ggatggcatc agtcaacatg acaggtctgg 146807

gctctcccag acctctgagg gtggctggca ctgtggtggt catgtgagag ctgccgcact 1468

atgactctct gtggctctgg gcataggget gggaccatca gggttggtgt gtgggatgag 146927

gggagggctg gacatggcag agacaggacc aggagggagc cccctggaag cagggctgga 146987

tccaagtggg gggccaagtc attgtgtcca gggaaggaga tttctgagag agttgccaac 147047

atcctggagc tcccccagcc cgcaggggtc tctcagcaga gcccgagctc aggcaagggg 147107

ctggcatggt gatcacaggg ggccactaaa ggatgcttag aaaaccagga tggaggcccg 147167

acccgggget gggctggcac agctgggtca gcaggacaca ggaccttctc tctaggccct 147227

gcccccagat agatcccaga cacccccagc agacagggct cctcccatgc tgctgagctg 147287

catttggggt tccctggtgc agtgggtccc aagagggtct atccaaatcg gacgagaggg 147347

acctgcagct gtaacaagct gattccagct tttatgtgcg ttttgcgggg taggtccccg 147407

ctggctgcga cccactgccc gtccttcctt caagctgcca ccaggggca cccgcggcca 147467

ggtgatgcct gctcccagga ctggagaagc cgccaagcat ccccaggctg acagtggtgt 147527

ctaggcctgg gctctcctgt cctgcctccc acccgccact tcctgcgtgc actttacacg 147587

ccagccacgc cctgtcctag tggtccccca cccgcctcac tgtctctcgc tccacagctg 147647

gctctgctct gcccggctgg aacctctgtc cttgtttgcc tcccgcaatg ggtggggtgc 147707

cctggggggc tactatgact caacctgttc tgagcccttc actggggacc tcaggtgtgt 147767

ccagtggctg tgggtgtttc tagaaggcat agaggtgtgc cacctcccag ttcactttga 147827

gcactgttct gagaacaaca tgccccatgg tcaggggtcc caagataaac agaccctggg 147887

tcctgccttc cagggcctca gaggctcagg agagaagcaa ggattccccc caggttccca 147947

catccttgca gaccaaagca aactcgaatc ctggcaggct cccagttgct gccctcttat 148007

tcctggtgac cccctctgac agttggtccg gcccgcagag cgccgctgct gccgcgtggt 148067

ggctgcccga tggcccctgc cgtgggggctt cctagcaccg gcagaacgca gatgggcagc 148127

gtgctgtgga gaggcagcag ctctcctgct ggactctctc agtctctggt ccacattcta 148187

ccctcgccac cgtgtgcttg aggaagcccc taagtcagct cggctggaaa gtggttctag 148247

gaaactggcc ttcgtggccg ctttggggat gagaccatgt gtgatgcctt cagcaagatc 148307

ccagttcgta tgcgcagggg tgccgcagtg atcctgcgtg gactatccta ttggcaggcc 1483ı

tgcccttccc caggttacct acccggagga atcccgcagg ccctcccaca acaggcttca 148427

acgcccccctc ctccatgaag ttctccttga tctgtcctgc ctggggggag agatttgtgc 148487

cagccgagcg tgctcgggtg cgggagtcaa acacacctac acttgctctg aggagtcctg 148547

ggcaaggctc ccccaggggc ccatgctgta tccctagggc tgttttttc tctccggccg 148607

ttttcttctc tccatgcttc cccatctccg ctcctccctg cttcttctta cacactggcc 148667

tcatcctctc cctcttcaga gatgacccccc aaatcattcc cctttccatt atcctcagcc 148727

agccaacccc tcccagggac tgtgtaaaac tctcatggaa ggatctgatt ggctctgtgt 148787

gggtcacttg cccactttt gcaccaatca gcatggacag ggatatcaca tgcccaagtt 148847

ggccaggcca aggggcgagg agagcactgt gattgaccgc tcacagggat agggagtgca 148907

gtggcgccat ctcggctcgc tgcaacctcc gcctcctgga gtcaaacact tctcctgccg 148967

cagcctccca agtagctggg attacaggcg ccacgggtgg cgaggcagg agcctttctt 149027

tccccaaagg aaagaggagc ggagcactgg ggctgaaagc agccggcgtt·gnggtcccac 149087

atgcagatga ggctaggaga ggtgaagcag ctcccctgcc cttttccctg ttaagggaac 149147

cttctggaat ttaagaaacc tgcctgaatg tgaggaatgg ctctcatggt ggtgcggcct 149207

ggtgctctag gatgagaggg gcccctccct ctcccccaga gcacgtgtca gctgaattcc 149267

acacccgaac aggggggagga tcaggaactg tgtgggttgc aaatgacttt aattatgtcg 149327

ctctccttcc actaaatgga tcagaagaac cagcattgtg tgaaatcacc caggttcatt 149387

ctgtgaactg ttccctgaag aacaaagggg gctgcctccc cactgtgctg gcgcggggag 149447

ggtgtggcct cccccagtca gcctgtggcg cctgggcagg gcccttctgt gggactcgtt 149507   .

cacccggccc ccctcgcatg ctgcttccct tgtcccaggc tctgagtcac atataaagcg 149567

ggtgcggctt tggtcacatg gacgattagg atcgaggagt acctggtaaa taacaagaag 149627

caaagtgcct caagcccagc actgtgcggg gtgttcagcc tatgtccccct gattcacgct 149687

caccaggggc tgcgttccct tgttgatccc agttcttata gaaaactaag agagtgcgca 149747

tgtcagggta gggcagagct gggatccgga cccaggcgga ctggccagag cccaagcccc 149807

tgactgcagt gccggagctc acgtgtgagc ttttgtcctc tgtgcataac ccctggagac 14986

ccagggatcc acctggttct gtcacagagc agtgtcaccc tcaggaagcc cagctcagct 149927

tccaaaagga aacaggattt cctccctgaa gagccttcag caggacaact tctttatggt 149987

cgcttttcgt aacatcctct tcctccccag ttaccttgca cctcacagct gctccagggc 150047

cctgcagagg ccaaacccca aaaccctccc tctgggcgca ggcccacaga actgtgcttt 150107

ctctcctgcc tcttactatg tggatgaact taccccttcct cccaccggca ggaaccccctt 150167

ctccttagga gcagggagag cagagaaatg gtgtggaatt ctctttagcg ggacggtgag 150227

ggcagcgagc ccctgcacgt cagcactgct cgccccgacc ctcatggcga tgcatgtttg 150287

tttattcgcc cgagtcctcg ggacaggcgg gccctggag ggaagcaggg cctggtggtt 150347

ttctgtccca gctgcttcca tgtctacctc ctgctgtggt tgcacagtct gtttggaagg 150407

ccagagcttt ctctcctgga ctaacagaaa ttacaggagg gtctttctt ttcttttctt 150467

ttctttttc gagacggagt tttgctctta ttgcccaggc tggagtgcag tggcgcgatc 150527

ttggctcact acaaccttgc ctcctggatt caagcaactc tcctgcctca gcctcctgag 150587

tagctgggat tacaggtgcc caccaccatg tccagctaat ttttgtattt ttagtagaga 150647

cagggtttca tcatgttggc caggctggtc tcaaactcct aacctcaggt gatctgcccg 150707

ccttggcttc ccaaagtgct gggattacag gtgtgagcca ccacgcctgg ccaggagggt 150767

attttcatga tgattggggc agaggataaa aaggatctta gctcctggcc ccaaagtctg 150827

catgttggtg gcagctgaca tgtgaggggg tataagagac cccaagatac aggggaatag 150887

aggcaggtgt ggtttccctt tccagggagt gatggctctg taggctctgg gattgctttt 150947

tcatttgttt gttgttttgg gacagagttt tactctgtca cccaggctag actgcagtgg 151007

taaatcacag ctcactgcag tctctgcctc cccaggctca ggtgatcctc ctgcctcccc 151067

aggctcaggt gatcctcctg cctcaacctc ctgaatagct gggactacgg tcattttaa 151127

ttttttttg tagaggtgga gtctcgctat gttgtccagg ctggtcttga actcctaggc 151187

tgaagcaatc ctcccaccgg ggcctcccaa agtcctggga ttatgggcgt gagcccccac 151247

acctgggctt atttctcgag aaggggcttg tgctcctcct cacctgatgc ctctccttct 151307

cccaccag c gtc atc atg acc ggg gcc tac aac aac ttc ttc cgc atg   151355
            Val Ile Met Thr Gly Ala Tyr Asn Asn Phe Phe Arg Met
                355   360

ttc gat cgg aac acc aag cgg gac gtg acc ctg gag gcc tcg agg gaa   151403
Phe Asp Arg Asn Thr Lys Arg Asp Val Thr Leu Glu Ala Ser Arg Glu
365   370   375   380

agc agc aag ccc cgg gct gtg ctc aag cca cgg cgc gtg tgc gtg ggg   151451
Ser Ser Lys Pro Arg Ala Val Leu Lys Pro Arg Arg Val Cys Val Gly
            385   390   395

ggc aag cgc cgg cgt gat gac atc agt gtg gac agc ttg gac ttc acc   151499
Gly Lys Arg Arg Arg Asp Asp Ile Ser Val Asp Ser Leu Asp Phe Thr
            400   405   410

aag aag atc ctg cac acg gcc tgg cac ccg gct gag aac atc att gcc   151547
Lys Lys Ile Leu His Thr Ala Trp His Pro Ala Glu Asn Ile Ile Ala
            415   420   425

atc gcc gcc acc aac aac ctg tac atc ttc cag gac aag gta aac tct   151595
Ile Ala Ala Thr Asn Asn Leu Tyr Ile Phe Gln Asp Lys Val Asn Ser
            430   435   440

gac atg cac tag g tatgtgcagt tcccggcccc tgccacccag cctcatgcaa   151648
Asp Met His
445

gtcatccccg acatgacctt cacgaccgca atgcaaggag gggaagaaag tcacagcact 151708

gatgaggaca gctgcagagg tggcagtgtg tggacacagg aagtttgggc cccctccctg 151768

ccccagcttt cctaggccag aattgtgttt ggcagtaatt gtctgtttaa aaaaataaaa 151828

ag   151830

<210> 38
<211> 447
<212> PRT
<213> Homo sapiens

<400> 38

Met Gly Glu Asp Thr Asp Thr Arg Lys Ile Asn His Ser Phe Leu Arg
1   5   10   15

Asp His Ser Tyr Val Thr Glu Ala Asp Ile Ile Ser Thr Val Glu Phe
            20   25   30

Asn His Thr Gly Glu Leu Leu Ala Thr Gly Asp Lys Gly Gly Arg Val
    35   40   45

Val Ile Phe Gln Arg Glu Pro Glu Ser Lys Asn Ala Pro His Ser Gln
    50   55   60

Gly Asp Tyr Asp Val Tyr Ser Thr Phe Gln Ser His Glu Pro Glu Phe
65   70   75   80

Asp Tyr Leu Lys Ser Leu Glu Ile Glu Glu Lys Ile Asn Lys Ile Lys
       85   90   95

Trp Leu Pro Gln Gln Asn Ala Ala His Ser Leu Leu Ser Thr Asn Asp
    100   105   110

Lys Thr Ile Lys Leu Trp Lys Ile Thr Glu Arg Asp Lys Arg Pro Glu
    115   120   125

Gly Tyr Asn Leu Lys Asp Glu Glu Gly Lys Leu Lys Asp Leu Ser Thr
   130   135   140

Val Thr Ser Leu Gln Val Pro Val Leu Lys Pro Met Asp Leu Met Val
145   150   155   160

Glu Val Ser Pro Arg Arg Ile Phe Ala Asn Gly His Thr Tyr His Ile
     165   170   175

Asn Ser Ile Ser Val Asn Ser Asp Cys Glu Thr Tyr Met Ser Ala Asp
    180   185   190

Asp Leu Arg Ile Asn Leu Trp His Leu Ala Ile Thr Asp Arg Ser Phe
    195   200   205

Asn Ile Val Asp Ile Lys Pro Ala Asn Met Glu Asp Leu Thr Glu Val
    210   215   220

Ile Thr Ala Ser Glu Phe His Pro His His Cys Asn Leu Phe Val Tyr
225   230   235   240

Ser Ser Ser Lys Gly Ser Leu Arg Leu Cys Asp Met Pro Ala Ala Ala
              245   250   255

Leu Cys Asp Lys His Ser Lys Leu Phe Glu Glu Pro Glu Asp Pro Ser
              260   265   270

Asn Arg Ser Phe Phe Ser Glu Ile Ile Ser Ser Val Ser Asp Val Lys
              275   280   285

Phe Ser His Ser Asp Arg Tyr Met Leu Thr Arg Asp Tyr Leu Thr Val
              290   295   300

Lys Val Trp Asp Leu Asn Met Glu Ala Arg Pro Ile Glu Thr Tyr Gln
305   310   315   320

Val His Asp Tyr Leu Arg Ser Lys Leu Cys Ser Leu Tyr Glu Asn Asp
              325   330   335

Cys Ile Phe Asp Lys Phe Glu Cys Ala Trp Asn Gly Ser Asp Ser Val
              340   345   350

Ile Met Thr Gly Ala Tyr Asn Asn Phe Phe Arg Met Phe Asp Arg Asn
              355   360   365

Thr Lys Arg Asp Val Thr Leu Glu Ala Ser Arg Glu Ser Ser Lys Pro
              370   375   380

Arg Ala Val Leu Lys Pro Arg Arg Val Cys Val Gly Gly Lys Arg Arg
385   390   395   400

Arg Asp Asp Ile Ser Val Asp Ser Leu Asp Phe Thr Lys Lys Ile Leu
              405   410   415

His Thr Ala Trp His Pro Ala Glu Asn Ile Ile Ala Ile Ala Ala Thr
              420   425   430

Asn Asn Leu Tyr Ile Phe Gln Asp Lys Val Asn Ser Asp Met His
    435   440   445

<210> 39
<211> 19
<212> DNA
<213> Artificial

<220>
<223> primer 99-24169/139

<400> 39
ctggctgagg cctccttgt   19

<210> 40
<211> 19
<212> DNA
<213> Artificial

<220>
<223> primer 24-257/320

<400> 40
gtccttctga tggcctgcc   19

<210> 41
<211> 19
<212> DNA
<213> Artificial

<220>
<223> primer 99-24175/218

<400> 41
caagctggat tcgcaatca   19

<210> 42
<211> 601
<212> DNA
<213> Artificial

<220>
<223> amplicon 30-4

<220>
<221> allele
<222> (301)..(301)
<223> polymorphism 30-4/58

<220>
<221> allele
<222> (301)..(301)
<223> biallelic marker 30-4/58

<400> 42
tgaagccgac gttgtcgccg ggcagagctt cgctcagagc ctcgtggtgc atctccactg   60

acttcacctc agtggtgatg ttcactggcg caaaggtcac caccatgccc ggccgcagga   120

tgccggtctc cacccggccc acgggcaccg tgccaatgcc tgcagagggg aggggtgtg   180

aggggaaggt ggggcccgag gggatgctgg ggcaggatat tcggggacag agcctggaaa   240

ccaacaaagc ctgggactgg atcccccga caggcctggg ggttggggcc acatgggcgg   300

rgtgcagggg aagggaggcc agggacaagg gcagacacag agattccaag ggaagtgggg   360

gctctcccac ccagctgggg aaataagagg ctgagcagca gagctcccag gaacccacgg   420

aaaagccaca gggacagaga agcgggagga tgggcagaga ggggctgtct gaacctgggg   480

tcccatcctt gcccccggag agcactttcc ctcaaaggag gcactatggg acccctcctt   540

tgtctgagga ctcctccctg tgagtgtggg cggggcgact gactgcttct gcctggggcc   600

t   601

<210> 43
<211> 601
<212> DNA
<213> Artificial

<220>
<223> amplicon 30-2

<220>
<221> allele
<222> (301)..(301)
<223> biallelic marker 30-2/62

<400> 43
gctaacagga gaaagcacct gcacactagc tccccgacgc tggaacaggg ccatggccct   60

gcgccccaca ctccagctcc actctccaca ggaaaaggct cccagaatcc agccactcag   120

tgtgtgggggg caggggccct gctgacttag aaacaagtgg cacattgatc cgcattcaaa   180

cttgccagcc aatcaaccac agccccgcgc acagactctc ccaggtggga ctgaggggggt   240

ctcccctgtc cttggcaggg gcgtctcccc cacgcacccc cagtcccgtc tctccacag   300

rctccagatg cccacatccc cagaacactc aatgggacaa ctcagagcag gttacagaga   360

aagaaaagcc acacaagctc accaagggca cgctatttca gaagtgcctt ctcctcctgg   420

aaatgtcgac cccaaagctc tcactgggaa acctctggcc tggccccggg aagcgacagg   480

cgcaggtttg gggctgaggc cgtcccagca gctctgtggc ctgccagacc tcagagcact   540

cccatcaggg gccacaagag cagagagctc ttcagcccca tgttctcctg gacgaattaa   600

a   601

<210> 44
<211> 601
<212> DNA
<213> Artificial

<220>
<223> amplicon 30-17

<220>
<221> allele
<222> (301)..(301)
<223> biallelic marker 30-17/37

<400> 44
caccacccgc cacctgcctc caggagcact gcagcctcgc cagtcagccc actttgggct   60

ctgtctccag ggatataggg gctggatgga cccgtctcct gaggccagca gaggctccac   120

gccagggtcg gtggcagggc tggcacaggg gaaccaggag gcgccgctgg cttcaccatc   180

ttagctacgg cagcccattc ccctgagcct cctggcctgg gcaacagtgg ctcgcatggc   240

cagcccaccg tgccctccag ggtcagtagc gtctattctg gcggccagca gggctggaga   300

rtcttgggac tgttgagacc ctcccccaac ctccctgagc ctccgggcac agatgtgaaa   360

agggtgccca ctgcagtcag cactcaaccc ccacagcgtc cagggaggga gaggggccac   420

cgggggctga cccctgccca ttctgcagac aaagccacca ccctgccagg gctcaagagg   480

gaagaaaatg gggaggggggc catttgagca aatgagccca cccgtgagca aggtggaggg   540

acagcacagt ctggcaggat ggggtctcgg tcactggggg gcctggggcc cctggaactc   600

a   601

<210> 45
<211> 601
<212> DNA
<213> Artificial

<220>
<223> amplicon 30-7

<220>
<221> allele
<222> (301)..(301)
<223> biallelic marker 30-7/30

<400> 45
gccgagatcc cccgagtccc gaggcgtcgc gtgcttgggg acgtcaggag ccgatggtac   60

aggctcgctc aggaccccag tcctgagtcc acacccctgc actgcctgag gccaacacac   120

cgtgcccatg ggggccaggg gtgctcagag tcctggtgct gtgggtgcct ctgtcccaac   180

ggcctctggt ccccatccca acaacaaaag cacaggtggt cggggagaac cggacggggg   240

ccaggggagc acatgggcac aggctcagcg ggactcctgg aatgttctct ctttctccac   300

ygcacgagcc atttcaaagg caagaatagg cccctcctga ccccgctcag gcaggcctca   360

gggcaagtgg gagtcactgg aagactcaat tcctctctct gcgtttccac ccgaggcagg   420

tccagtcacc agagagagaa gcagccacct cctttctcac ggcagctggc aaagcaccgg   480

gtggaggaca gagccggtcg gcccaactgt agcttcgggg ctgcccttgg ctggtctctg   540

ggcagagccc ggtgctgagg gcttgcagtg ggaaaggcac agcttgagga atgggcatca   600

g   601

<210> 46
<211> 601
<212> DNA
<213> Artificial

<220>
<223> amplicon 30-84

<220>
<221> allele
<222> (301)..(301)
<223> biallelic marker 30-84/37

<400> 46
tgtgctaaaa catagtggct taaaaataat gataaccatt tatcgtctca gtttctgcag   60

ctcaggagtc ggacggcacg cagccgatct ccactcccaa cgtgcagggc ctctgccata   120

agccttgaag gcactcattc actcacgcat cgggggctag tacaggctgt gacagaggcc   180

tgagctggaa ctgttgacca ggacacacac atggccatgt ggcctctggg cttcctcaca   240

gcatggtgtc tggattccag gagttggcat cctgagaaac aaccatgcag aagcagccct   300

rtggatcctg gcctggcctt ggagtcaggc agtgtcactc ctgtgccttc taacctgggc   360

ccccgggccc aaggggagga aatggagacc ccacctccca gtggagggaa ggcaaggtcc   420

cactgtgggg gtagcacatg ggatacaccc atgtggctgc cgctggagac gttagtttgc   480

cacacccgtt tcttctacgt gaacatttgc ctgcatctca ccttctaact cctgggtgct   540

gtttgtccat tttcactaca ccaggggccc ccacagtata tgcagaccag gtttcctggc   600

c   601

<210> 47
<211> 601
<212> DNA
<213> Artificial

<220>
<223> amplicon 30-15

<220>
<221> allele
<222> (301)..(301)
<223> biallelic marker 30-15/54

<400> 47

gatgctgaat aagccaggaa gaagatccgg ctaaatgttg gcacattcta aagtctacgt　60

gaggccagtc tgaccctggg aacctccatg aagacatggg cgtggagggt ctgccttttg　120

cagggcccac caggggctca caggaaaggt cgtggaaaat tacaagaaat cttccctctg　180

gcactagcgg gtgaggggaa tggaagccac cgccagacag caccatctcc tcaccctcct　240

gtgaagcaca agactcactt gcagagggaa gagcgcagaa accgtcaccc caggacgctg　300

mggttgaacg agaggaagcg agaatggaga agccctggcc ctggggaaca ggatggaaaa　360

cgcttggctc agctccgtgg ctgcgaagga accggcgcgc tcgcggaggc cacaccccga　420

gacccgagga cacagtgcct gcctgagatg gagccagaaa cattctccac cctttcacgc　480

aagactaaca agggctccat gaaaataaaa ctggaagagc tgaaagagaa gcattctccc　540

tgggtgtgaa accaagaaaa gacacaaagc caaggaaaag ccattgagaa aacacctggc　600

a　　　　　　　　　　　　　　　　　　　　　　　　　601